

The **AMERICAN RIFLEMAN**



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AUGUST, 1932

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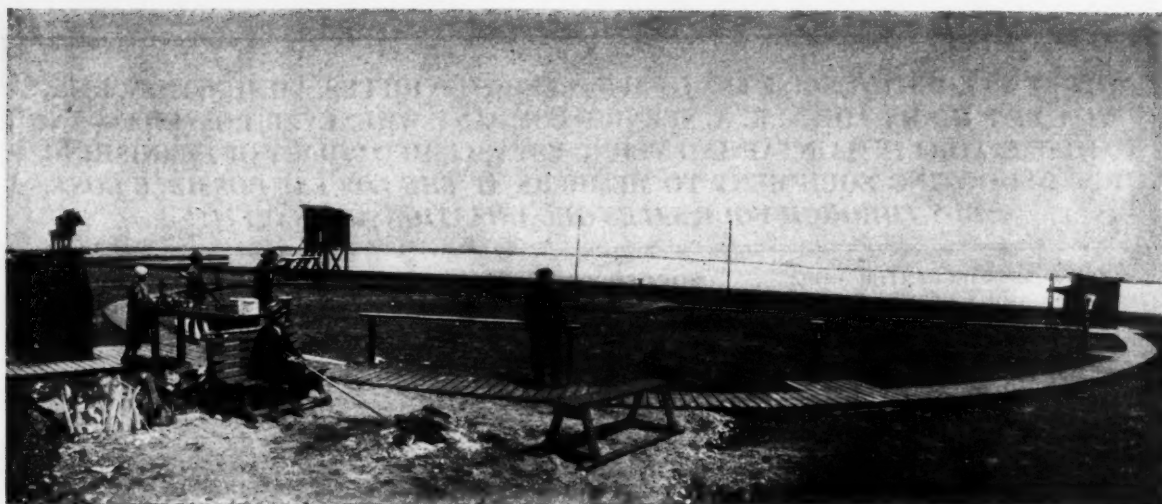
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The AMERICAN RIFLEMAN

VOL. 80, No. 8

AUGUST, 1932

WHY?

The American Rifleman is the official organ of the National Rifle Association of America, created and maintained to accomplish the following objectives:

1. Assistance to legislators in drafting laws discouraging the use of firearms for criminal purposes.
2. Prevention of the passage of legislation unnecessarily restricting the use of firearms by honest citizens.
3. Teaching the safe handling of firearms to both adults and young men and women, and providing safe ranges, interesting competitions and attractive trophies, to reduce haphazard shooting.
4. Encouraging adequate police instruction with firearms and providing instruction courses and instructors.
5. Developing higher standards of marksmanship in the uniformed Services constituting our first and second lines of defense.
6. Assisting commercial and government arms and ammunition factories in the development of improved guns and ammunition.
7. Providing shooters in small communities with the same opportunity to obtain the latest and best in shooting equipment as is enjoyed by the residents of the largest cities.
8. Providing new shooters with unbiased information which will avoid their wasting money on equipment not suited to their needs or purse.
9. Standing firmly behind all proper efforts to maintain an adequate but non-militaristic national defense program for the United States.
10. Maintaining proper permanent records of achievement in rifle and pistol shooting similar to those maintained by the respective National organizations interested in other competitive sports.

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EDITORIAL

FIGHT!

*So, 'ere's to you, Fuzzy-Wuzzy, at your 'ome in the Soudan;
You're a poor, benighted 'eathen, but a first-class fightin' man!*

WHEN Kipling wrote "Fuzzy-Wuzzy" and penned this tribute to the unconquerable mountain men of India he knew little or nothing of characteristics of the typical American rifleman. If the great spinner of men's yarns had been in close touch with the shooters of this country during the past twelve months he would, however, have learned much to recall to mind his poem.

The American rifleman is regarded by many of his friends and by all reformers as something of a "poor, benighted 'eathen." He raves about peculiar gadgets for which the average sane person can see no reason. He performs magic with a shining rifled tube and little cartridges of metal and chemical compounds. He spends hours, yea, even days, away from the accepted white lights and headaches of "civilization." He has been known to mutter strange things to himself when a red flag was waved in his face from distances of more than half a mile.

But follow the course of this poor benighted through the pages of history. Always he leads the advance. When the weaklings, the politicians, the reformers (yes, even in that day!) were clinging to a few tiny settlements on the coast the American rifleman was pushing his way through the dark and bloody ground to the west. You find him at the Alamo, at New Orleans, at the mouth of the Columbia, at Valley Forge, sticking where all others have quit like rats from a sinking ship. He appears at Cowpens, at Fort Necessity, at Yorktown, at Lookout Mountain. He is on the *Bon Homme Richard* keeping gunners away from the guns on the *Serapis*. He lands from the *Constitution* at Tripoli. San Juan has seen him, and Belleau Wood knows him well.

For some time now he has felt the pinch of hard times. A Congress, willing enough to economize where the danger of lost

votes is small, deprives him of most of the little encouragement it has afforded him in the past. Police officials with departments crippled with graft and red tape tell him he is a potential criminal because he knows more about firearms than the police do. Sometimes he has found it impossible to raise the money to keep the handbook of his clan, *THE AMERICAN RIFLEMAN*, coming to him regularly.

But read his letters during this period. Talk to him on the firing line. Is he frightened, confused, looking for a way to retreat? Is his tousled head bowed in surrender to conditions he did not bring upon himself? Has he abandoned his National Association to allow his beloved rifle game to go to pot at the hands of pacifists and antgun reformers?

He has not!

Riflemen of America, you are pointing the way for cowards and for weaklings as you have always done. By your attendance at those regional shoots which you can afford to reach; by your fighting support of your National Association, finding, as you are, men who can afford to support it even though your own purse is empty; by your very mental attitude, you are showing the nation as you have shown it often in the past that you are its most courageous sons. That from your ranks spring leaders, not followers! Press on, you fuzzy-wuzzies; keep alive the spirit of Valley Forge in this Bicentennial year. And when the inevitable turn comes, your sport will have already climbed to new heights, and the ranks of the "poor, benighted 'eathens" will have swelled to new record proportions. Spend a day or two at the nearest Regional Match, take a tyro, gain a recruit.

So, here's to you, Fuzzy-Wuzzy, you of the rifle clan,
Mechanic, cornhusker, or banker, *you're
a first-class fightin' man!*

The **AMERICAN RIFLEMAN**

AUGUST, 1932

My National Match .22

By CHARLES O. BOWER

DRY SHOOTING" is a very cheap and beneficial form of practice, but there is always that doubt present in the shooter's mind as to where the bullet would actually have gone, and whether or not he called his shot correctly. A bullet hole in the target immediately dispels all doubt as to whether the aim, hold, squeeze and call were correct. A serious study on the part of the shooter will then disclose which operation, if any, is wrong. But some of us who like to shoot the .30-'06 Springfield find the price of ammunition high, and the trouble and inconvenience of getting to a suitable range a considerable handicap. It is the small amount of regular, frequent practice that makes a marksman and keeps him in condition, rather than an all-day shoot every two weeks or so. With a suitable .22-caliber arm and a small-bore range near home one can as nearly duplicate .30-'06 practice as is possible.

I could use for my daily .22-caliber practice the regular M-1 Springfield, but in stock, sights, balance and feel this rifle is quite different from the National Match Springfield which is my regular rifle. Being accustomed to the feel of a certain tool is a very definite advantage to the one using it. The M-1 Springfield is an understudy of the .30-'06 Sporter, and if one is going to shoot the Sporter most of the time, the M-1 as issued is the proper subcaliber practice arm. But for one who uses the National Match rifle in most of his shooting, the proper subcaliber practice arm is something different. Try shooting a Sporter or M-1 for a considerable length of time, and then pick up your National Match rifle and see how awkward it feels and handles.

To meet this situation and provide myself with a suitable .22-caliber understudy to my regular National Match Springfield, I remodeled one of the M-1 Springfields into National Match form. Blindfolded, and without feeling the bolt or magazine of this

.22, I cannot tell it from my .30-'06 National Match rifle. In shooting, the only difference that I can detect is in the recoil, ease of bolt throw and loading of the magazine for rapid fire. The weight and balance of the two rifles are the same; the sights look the same; the buttplate strikes the shoulder in the same place in each position; the cheek touches the stock in the same place, and everything looks and feels the same as in my .30-'06 rifle. After shooting this .22 on my home small-bore range during the week, I can detect no difference in the feel and handling of the two arms. When I go out to the regular target with the .30-'06 I feel perfectly at home with it, and to use an old expression, "it fits like an old shoe."

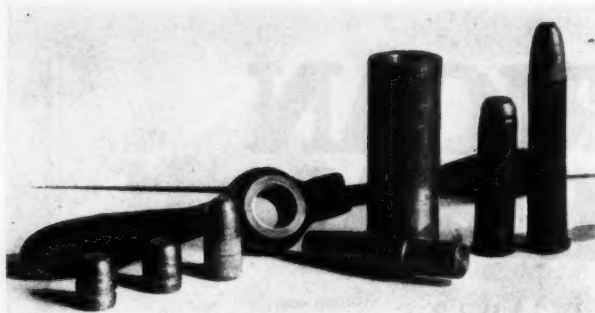
Now a few words as to how this National Match .22 was built. As the regular Service rear-sight fixed base is not listed in the D. C. M. circular I purchased a rear sight complete (base and all) from Stoeger, as they take them off National Match rifles that they remodel into Sporters. Taking out the movable front-sight stud, I slipped the rear-sight fixed base down the barrel. It could be pushed to within $\frac{3}{8}$ " of the receiver with the hands, and by placing a block of wood against it and tapping lightly with a hammer, it easily went up to the receiver. Having previously zeroed the rifle with the Lyman 48, I tapped the fixed base to the right or left until it came in line with the 48 and the front sight. (This after the front stud had been replaced.) I then took a center punch and marked the barrel on both sides where the rear-sight fixed base pin comes through. Removing the rear-sight base, I filed a small notch on the under

side of the barrel from mark to mark to take the base pin. Replacing the sight base I drove the pin through, put the rest of the sight in place, and my Service sight was attached. I did not put the rear-sight fixed-base spline in, as that would

(Continued on page 31)



AS NEAR ALIKE AS TWO PEAS



TWO .50-95 BULLETS AND ONE .50-90 SHARPS; ALSO THE BULLET-SEATING CHAMBER AND PLUNGER, AND THE SHELL RECAPPER. THE LOADED CARTRIDGES ARE THE .50-95 WINCHESTER (LEFT) AND THE .50-90 SHARPS PAPER PATCHED

WAY back in a January, 1926, copy of THE RIFLEMAN there is an article called, "Old-Time Smoke Sticks," by Colonel Whelen. The Colonel concludes the article by saying, "We would like to hear from riflemen who have thus successfully rejuvenated these old-time black-powder smoke sticks."

I suppose an apology is really due for ringing in on an invitation as old as this one, but I figured that an old one was better than none at all, just as an old rifle will help to while away the shooter's time and money when there is nothing else to be had; and sometimes one can get untold joy out of these old coal burners. A certain sense of victory which is hard to explain accompanies the first blast of smoke, flame and thunder which issues from one of these old-timers after many years of silence and slumber in the attic dust, and great was the joy that I experienced on my first sojourn into the land of the old-time big bores.

The spring of 1931 came with the usual itching to get out and burn powder; but what should I burn it in? Of course, there was that perfectly good Springfield Sporter and that sawed-off Krag, but for some reason I wanted something different. If only I could get a new barrel for that Winchester Single Shot—but no; there was that darned financial question again. Gun money has always been plenty scarce with me, and even if it hadn't, there is that convincing argument put up by the budget keeper whenever the purchase of a firearm is mentioned. The shooters' god must have heard my prayer, however, for just about this time the talk in one of the noonday discussions at the shop switched to guns, and, lo, my plumber friend mentioned something about an old Winchester he had at home. "Well, I had that plumber swamped with questions and gasping for breath in no time; but I learned to my

great joy that the old gun was in good condition and that the plumber needed a pair of overalls very badly; in fact, so badly that he was willing to part with the old Winchester for them. Needless to say I had to go shopping for overalls, and in a few days came home lugging a ten-pound addition to the gun family.

Somehow my wife just couldn't seem to appreciate that addition. I praised it, bragged about it, and even told her the history of it; how my friend had owned it for twelve years and had never shot it, because he couldn't get ammunition for it. "Well, then, where do you expect to get ammunition for it?" asked the very much disinterested budget keeper. "Why, I can get ammunition," I replied lightly. I hadn't even thought of it before, but right there I made up my mind that I would have ammunition if I had to make it. But .50-95 Winchester Express cartridges for "Old Centennial"—boy, it looked like a problem!

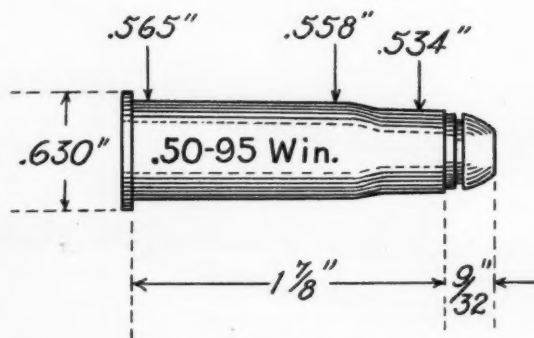
The first thing needed was a shell to fit that old chamber, and I didn't even know what one looked like. The only Winchester catalog I could find revealed nothing. I could have cast a plug in the chamber, but I wanted to shoot, and so proceeded to hunt for something, I hardly knew what. Out came that indispensable collection of old shells. The first to be tried was a

Poverty and

.45-70; it almost dropped through. Then a short rim fire of about .52 caliber—almost a fit at the base and rim. So I miked the shell just under the rim, and got .562." Then, picking up a long, straight-tapering shell without any marks on it as to make or caliber, I put the mike on it. Joy! .565". It was too long for the action, however, and wouldn't go in. So I pulled the bullet, cut off about $\frac{3}{8}$ of an inch of the brass, slipped it into the chamber, and closed the action. I had a shell! And though it wasn't just right I knew that the old gun was going to roar again. A good load of black powder and some snugly fitting wads produced the first boom to issue from that old barrel in twelve years that I knew of, and perhaps many more. Anyway, we both rejoiced and whooped it up again and again.

Now I had the real shape of the chamber, which was slightly bottle-necked, the black powder giving sufficient pressure to expand the shell the necessary amount. The brass was finally cut off and squared up $\frac{9}{16}$ " shorter than it was originally. The rim of the shell being too large to pass through the loading gate, it was filed to the proper size. My shell was now complete, but there was only one; and if I were to make them myself there would not be many and they would not hold a very large charge of black powder, as I could hardly hope to make them as thin as factory shells.

So down to the local hardware and sporting goods store I went, with a long face and a sad story; and you should have seen that clerk's face. "What, .50-95 Winchester Express? H— no! Francis Bannerman sells cannon fodder; how big are the wheels on it?" I started to leave, not as much surprised as I should have been had he said "Yes." "Hey there," he called, "wait a minute. Come out in the back room; we've got some old stuff out there that might help." In said back room he handed me a box of .50-90 Sharps, paper patched, ten in a box, made by Winchester. After blowing the dust off I opened the box. Boy! the very thing I used to make that first shell. "How much do you want for 'em?" I asked. "Well, would a quarter be too much?" "Gimme two boxes," I replied.



THE HOME-MADE CARTRIDGE

Powder

By H. A. BIRDSALL

And so the shell question was solved; but a still greater one presented itself. Where was I to get a bullet mold? Buying a cherry and mold was out of the question. (Later I found that the Lyman Gun Sight Corporation does list a mold for this cartridge in their "Ideal Handbook," but my old Handbook does not have them.) It looked as if my only choice was to make a mold, and though the method of procedure was very vague at that moment, the decision to tackle it was made. I must have bullets.

Accordingly, a lead slug was driven through the barrel with a brass rod and hammer. (Incidentally, that barrel was almost perfect inside in spite of its age. Someone had given it some loving care during all those years.) The slug showed the barrel to be just .505" to the bottom of the grooves, which indicated that a bullet of .507" or .508" diameter would be about right. Examination of the action disclosed the fact that the bullet must not project more than 5/16" beyond the mouth of the cartridge case; and so with these measurements and an old Ideal catalog I designed a bullet, not knowing what it would weigh or how I would make it. It was to have a dirt-scraping groove, a crimping groove and one lubricating groove, with a nose similar to or even a little flatter than that of the regular .45 Colt bullet.

Now came the part which was attended with some misgivings, but there was no giving up without a trial, and the trial proved to be more than I had hoped for. Two blocks of cold-rolled steel, each 1½" x 1½" x ¾", were filed and scraped until they came together perfectly, and then doweled so that they would always come together in the same place. The blocks were slotted to receive the ends of the reshaped sprue cutter which formed part of an old .52-caliber mold which was to form the handles of my new mold, although the bullet cavity in the blocks was completed before the handles were fitted permanently. The two blocks, fitted and doweled, were chucked in my small lathe, the two edges which form the top surface of the mold being outward. A light facing cut over the two edges gave a true surface, and the blocks were ready for the bullet cavity.

A drill smaller than the smallest diameter of the bullet was run in about ½", followed by another which roughly formed

the nose of the cavity. Next, the cavity was bored out to the small diameter of the bullet, or about .040" less than the maximum diameter. Then came the forming tool, which had been made previously and ground to an exact profile of one edge of the bullet. This tool was lined up on one edge of the chuck, using a feeler, in such a manner that it would cut the base band in the cavity to the proper diameter. The forming tool was then withdrawn from contact with the work, moved further into the cavity, another band cut, and so on, until the cavity was finished. This forming goes rather slowly, and it pays to check the work frequently to prevent overdoing it.

I was blessed with a lot of luck, as my bullet finally came out .508" on the base band, and not over .001" out of round. As the bullets are later driven through a sizer which takes off about .0005" they come out as nearly perfect as could be hoped for. The finished mold and also two of the bullets are shown, the bullet

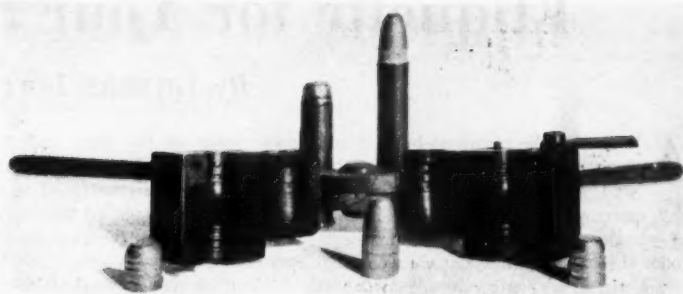
in the center being one of the .50-90 Sharps paper patched. The cavity shown in the bottom of the blocks is for a very blunt-nosed .45-caliber bullet, and was made in the same manner as described above.

My die and plunger bullet seater is very similar to the one sold by Belding & Mull, and is designed to crimp the shell on the bullet. The shell recapper was made to be used in conjunction with an old 12-gauge shotgun recapper, and is merely a steel bushing shaped on the outside like a 12-gauge shotgun shell, although much shorter, being about ¾" long. The inside is shaped to receive the .50-95 case, and it makes a very practical recapper. I also have one for the .45-70 case. Decapping is done with a punch and hammer; an old system, but a good one.

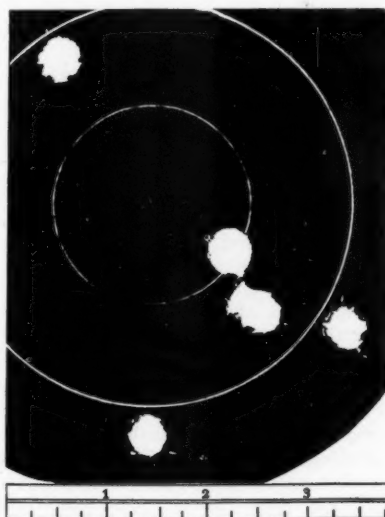
Now I had both bullets and shells, and the old gun was ready to speak. A few shots up in the attic with a light load of du Pont No. 75 proved everything to be in working order, and the following Sunday out on the range she belled forth her spite several times, and wrecked as many tin cans. Eighty-five grains of FG black would go nicely into the case, and I could crowd in 90 grains, but 95 just couldn't be crammed in. Of course No. 80 had to come in for a trial; first 12 grains, then 14 grains and finally 16 grains; and there it stopped. That old Winchester would no doubt handle more of it, but 16 grains of No. 80 shoots fairly well, and I'd rather be safe than sorry.

And now a word as to accuracy; and right here the bragging will have to stop, because I have no 2-inch 100-yard groups to show. That Old Centennial was never built for the target range. The sights on it are impossible, and I haven't taken the time or pains to figure out anything different as yet. Even with modern sights I wouldn't hope for much from that breech action, and it is my opinion that a good load of smokeless powder would simply open it up for inspection—but not

(Continued on page 31)



THE HOME-MADE MOLD. THE LARGE CAVITY IN THE REAR IS THE OLD .52-CALIBER MOLD USED FOR HANDLES. THE TOP CAVITY IN THE BLOCKS IS FOR THE .50-95 WINCHESTER, AND THE BOTTOM ONE FOR THE .45 COLT



THE ONLY TARGET SHOT. RANGE 75 YARDS

Etiquette for Your Sports Afield

By GILBERT IRWIN

ALONG with the recurrent hunting and fishing seasons come the semiannual wails about the ravages of town and city sportsmen who invade the outdoors. In summer time the ruralists broadcast about the vandals who scatter lunch fragments, tin cans, Sunday supplements and other litter from coast to coast and from the Gulf to the bathing places of the polar bear and walrus. In autumn their static is about the pursuers of wild life—burning the forests, wounding stock, endangering human life, and hogging the game laws. In many cases these protests are well founded, for far too many hunters, to say nothing of the tourists, still regard the rural sections as a sort of “no man’s land”—something that no longer exists.

Some may regard the annually narrowing open gamelands and fishing streams as being to a degree due to the establishment of large clubs; but the real cause is rather to be laid to the hordes of unskilled persons who take to sports afield without the slightest knowledge of, or attempt to learn anything about, the laws or rules of these sports. Most states now provide for an examination for applicants for automobile licenses, but at the same time permits to range the woods and pack dangerous weapons are issued indiscriminately.

Remember that time your gunning friend took you out to a favorite covert where he had enjoyed good shooting sport only the year before; and then, just as you were about to cut across fields to the bush, you noted hunters just ahead, and about that time from the farmhouse there came a hub-bub, and the farmer and his sons rushed after those gunners, yelling: “Hey there, can’t you read?”

And when they had overtaken the sports, if that is the proper term, you listened in on a parley which went something like this:

“I don’t allow hunting on my farm; didn’t you see those signs?”

“We hunted here last year.”

“Maybe so, but hunters have become a nuisance, and I just had to put a stop to it. Some durn’d city dude fired my woodlot last fall and burned up my cordwood and hundreds of young pine trees. Then some careless gunner put a bunch of shot into one of my Jerseys, and some thief picked off a bunch of my best laying pullets. I had to repair fences in dozens of places, and the boys were kept busy rounding up stock that had strayed. All summer I have been busy cleaning up after those gypsy tourists, and they packed

away loads of my fruit and vegetables. Only the other day a bunch of hunters swore at me and threatened to shoot me when I protested against their coming onto my farm without the courtesy of asking permission.”

“Another good day’s shooting spoiled by a lot of suckers,” you observed to yourself; and trudged on, seeking another likely bush, only to find another flock of those annoying “No Hunting Allowed” and “Fishing Prohibited” placards. About that time you began to make inquiries, and found that the farmers of the whole community had gone in for a protective league, banded together to protect their lands and property, and were determined to enforce their rights. By knowing any of the landowners you can obtain a hunting permit, and a heart-to-heart talk with most any farmer will disclose the fact that his resentment is against the reckless class that tends to damage, and that they all well know that there are plenty of careful and orderly hunters who observe the letter and spirit of the law when they go afield, and exercise due care as to property rights.

It is a vexatious problem when you wish to hunt or fish on privately owned lands, but one which it should be easy to solve to the mutual advantage of the true sportsmen, and the farmer. Here is the situation: Any rural landowner will readily admit that adept sportsmen—those who know the outdoors, handle the implements of sports afield properly—are familiar with the laws of forest, fish and game, and not only obey them but insist that others do so; and are not only no trouble to the landowner, but are actually an aid. Foresters and fish and game-law enforcement officers will tell you the same thing. So this is the situation: The reckless, careless and lawless hunters who cause all the trouble are the enemies of the farmer and of the real sportsman. The “Huns of the Highways,” who are always scrambling things for orderly motorists, are largely the “Half Hunters” of the gamelands. Alliance of orderly sportsmen and the farmers and other rural landowners is the solution; and this plan is being worked out to the satisfaction of both in many sections.

It is done in this way. Whole farming communities league together to restrict hunting. They include town residents in their membership, and these assist in times of farm labor shortage, plant game and help to feed it, stock the streams, promote fish nurseries, turn out in the forest-fire

danger seasons, and cooperate in many other ways with the rural landowners. An annual fee of a dollar per member is charged for both town and ruralites; and by getting in touch with friends in the villages adjacent to the hunting regions, city sportsmen obtain membership on the same basis. In this way reckless and unvouched-for gunners are barred, and the matter of vanishing gamelands for well-meaning hunters is no longer a problem in live-wire communities. This is a move of mutual interest to real sportsmen and to rural landowners which is spreading rapidly and which is proving beneficial to both.

Red tags may be more prevalent in the urban sections than out in the scrub, but today every bit of rural cleared land or bush is owned by someone who pays taxes on it and expects to have a say as to his possessions. Just think a moment how town or city dweller sees blue when neighbor’s cat or fowl trespasses upon lawn or garden; or the fit a suburbanite throws when urchins happen to stray upon the grass plot. But all too often he forgets about such incidents when he hikes out to the country.

When ruralite wanders to the city, errs in parking flivver, fractures complex traffic laws or makes other breaks, and gets a red tag, a bawling out or perhaps something more severe, he loses his temper and condemns all things urban. When town or city dweller turns countryward on camping, fishing or hunting trip, and meets up with the Iron Mule brigade of the highways, rural justices or injustices, is mulcted or cursed for trespass or other omissions in the wide-open places, he jogs homeward with anything but benedictions for the country and resort sections. In both cases the whole trouble is with the wayfarer. His lack of knowledge of laws, rules or common etiquette, and failure to observe certain taboos, causes all his trouble. A little common sense on the part of all concerned; cooperation of well-disposed outer, sportsmen, and farmer, and a combined move against the lawless and reckless—the enemies of all well-disposed citizens—will smooth over the troubles of those rapidly narrowing gamelands.

The foregoing applies to the privately owned outdoors. There still remain the millions of acres of national and state-owned forests and parks in which every citizen and taxpayer is a partner and stockholder—outing and recreational areas which are annually being extended, and

(Continued on page 30)

Round Bullet Loads in Shotguns

By CHARLES ASKINS

THIS is just a little follow-up of Mr. Karl Foster's interesting article on the use of special bullets in shotguns. Mr. Foster knows a good deal more about this subject than I do, and my object is simply to give something on the performance of the regular factory ammunition in round bullet loads. I have written a good deal about the inaccuracy of such loads; but recently have secured better results, and it may be that there has been a decided improvement in such ammunition. Without knowing all about it, I surmise that bullets have been made larger, so as to come closer to fitting the gun, especially a full-choked gun.

The Western Cartridge Company sent me a box each of 20, 16, and 12-gauge Super X round bullet loads. I shot them at 50 yards, beginning with a 20-gauge in a Remington automatic. I expected the gun to shoot all over a 30-inch circle, that having been my previous experience. Well, it didn't. Ten balls were placed within a 15-inch circle, and some of the fault of making so large a group was mine, since I pulled two shots to the right, and also lowered the point of aim after firing five shots. If I hadn't done that the gun would have shot into a 10 or 12-inch circle. The distance was a full 50 yards, in fact 53 steps. The shooting was from a sitting position, no artificial rest; but the first shot, which went the highest, was fired offhand. Four of the shots were fired rapidly, less than a second to the shot.

The 16-gauge was then taken up, using an old Ithaca, modified choke. Eleven shots were fired, the first one being used as an aiming point for the others. All shots went into an 11-inch circle, six of them into a 4-inch one. With perfect holding, and sights on the gun, front and rear, it would have shot, I thought, into

an 8-inch circle. That looked remarkable to me, and I'd about as soon have this gun and load for running shooting in the brush as a rifle.

Most of my missing at deer with the rifle has been at short range, game showing for but two or three jumps, permitting a snap shot only, with little regard for sights. Under such conditions a shot-gun will handle faster than a rifle, gun as a rule being lighter and fitting the shooter better. The shotgun man is, therefore, liable to make it pretty hot for a deer with such a gun and load. When the big bullet does strike, unlike buckshot it is absolutely deadly, knocking a deer right off his feet.

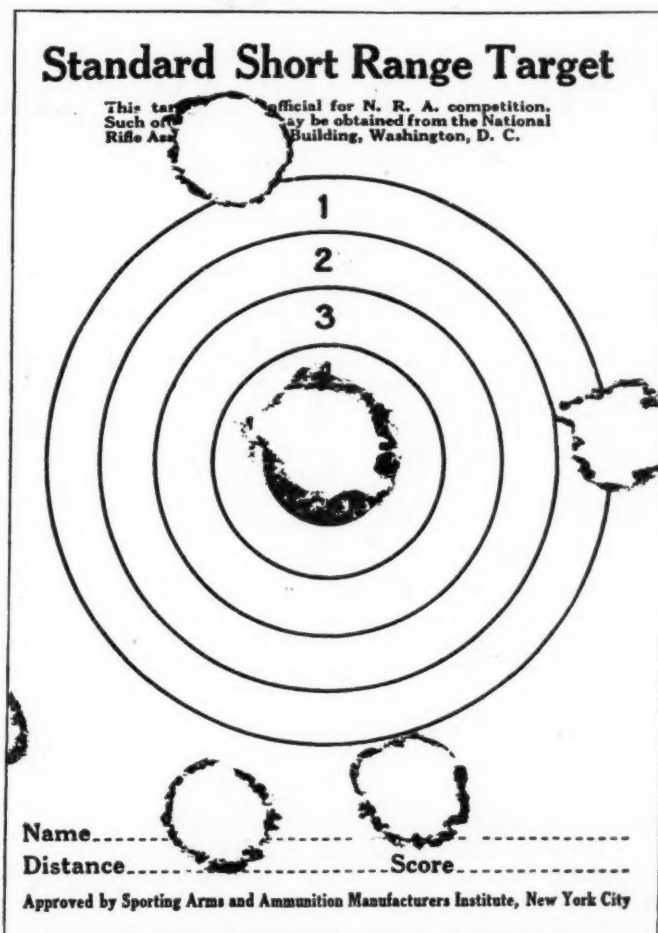
Lastly I went to the 12 bore, a Remington pump Model 29, full choke. With the

belief that I had been kicked enough for one day (and there is some kick to a shot-gun when sitting and pulling a delicate trigger), I fired but two shots at a knothole in the backstop, these landing within five inches of one another, just off the point of aim. Here was the first gun I had fired that didn't shoot high, being at the same time accurate. These shots aroused my curiosity as to what the gun would do at long range. A shot-gun target sheet had blown away and landed against a wire fence, around 100 yards distant from my shooting position. I took a shot at that. The bullet struck in exact line with the aim, but a foot low. Holding the next shot high, I got within four inches of the center. Subsequently I went about shooting at

trees at an estimated distance of 100 yards. Usually I hit close enough to have struck a deer if standing broadside. Some of these shots would have struck a goose at 100 yards, and it occurred to me that when the opportunity arose I'd shoot one of these bullets at a flock of geese, instead of buckshot.

The next day I shot the target shown, at 25 yards. The shooting was at the shorter range, because I hoped in this way to get a target which could be illustrated without reduction in size. What I hoped to do was to stay on a short-range .22-caliber rifle target, this being 5½ by 4 inches. I did that, but came pretty close to missing, the first ball barely cutting the target, high to the right. I now fired five more shots, which are to be seen, the last ball driving the tack. Of course the gun would have shot closer with rifle sights; but anyhow this is what it did do, I merely took the depression in the receiver for a rear sight.

I assume that not all guns will shoot round (Continued on page 30)



THE 12-GAUGE TARGET SHOT AT 25 YARDS. THIS TARGET WAS SHOT IN THE INVERTED POSITION, THOUGH IT IS SHOWN HERE RIGHT SIDE UP. THE CUT IS EXACT SIZE



EVERYTHING
ASSEMBLED
IN PLACE

Some Handy Krag Alterations

By LEROY E. COLLINS

MY BROTHER and I went hunting, he with his Remington pump and I with my Krag. A rabbit started to run, and my brother shot twice before I could get the Krag into action. It was then that I decided to have a more convenient safety on the Krag, and also to make some arrangement to keep the bolt where it belonged. An article in *THE RIFLEMAN* described Mr. Niedner's method of fitting up a Springfield, but the expense of having the Krag so fitted would be too great a strain on the family pocket-book; and, besides, there would be no fun in having someone else do the work. The changes as described below have been found simple to make and are very satisfactory on a hunting rifle.

The trigger-guard safety consists essentially of a $\frac{1}{4}$ -inch rod which may be pushed from right to left, and which, when in the latter position, permits the trigger to be pulled far enough to the rear to fire the rifle, but prevents the trigger from moving entirely back when to the right. The rod slides in a tube soldered in a notch filed in the trigger guard at the position shown in the second photograph. It is necessary that the safety be placed as far back as possible and well up, as otherwise the trigger finger will touch one end or the other of the safety, and interfere with proper trigger operation. The position shown in the photograph is cor-

rect, but it required three trials to determine where the safety should be placed. Solder cannot be heat blued, and the tube could be welded in place if desired, to give a better bluing job. The photograph also shows the lug soldered to the back of the trigger. This lug drops into a notch filed in the $\frac{1}{4}$ -inch rod when the rod is pushed to the left, but strikes the full-size rod when the rod is to the right, thus allowing or preventing complete trigger movement. The proper adjustments have to be made with an empty case in the chamber, as the case makes a difference in the trigger position when release occurs.

The next problem was to make the safety stay either on or off. A hole was drilled down through the top of the guard, and a slot filed for a pin made from an 8-penny nail. The pin was screwed into the $\frac{1}{4}$ -inch rod, and slants backward, as shown in the photograph, dropping into a notch at each end of its travel. These notches must be shallow or the safety will be hard to operate. A flat spring, made from an old clock spring and held in place by the rear guard screw, presses the pin down into the notches cut in the guard, thus solving the problem. The wood was relieved from the center of the rear screw hole forward far enough to give the spring full movement. The spring tension and depth of notches have to be adjusted until the safety can be easily pushed off with

the finger as the rifle is brought to the shoulder.

The safety is operated the same as a Remington safety, and can be released without materially increasing the time required to bring the rifle into action. While it does not lock the sear, there is very little likelihood of the rifle being discharged with the trigger held forward.

The bolt lock required considerably more work than the safety, but it has amply repaid the effort. The bolt stays in place when the rifle is carried under the arm, as is sometimes necessary in stormy weather to keep the action from becoming coated with ice. The lock consists of a headed pin which is pulled back by a spring into a notch on the bolt when the bolt is closed and the cocking piece drawn back. When the cocking piece is forward, the pin is pushed forward by a lug welded on the cocking piece, and the bolt can then be operated in the usual manner.

The old safety was first removed by turning it to a vertical position and driving it to the rear. Next, the sleeve was annealed, care being taken not to heat the extractor spring. Then the hole from which the safety had been removed was drilled forward to the rivet, and this was not an easy task, as the drill tended to run. However, a perfectly true hole, while desirable, is not absolutely necessary, as one can do some filing on the pin. The detail

photograph shows how the grooves were cut in the raised portions of the back ends of two bolts. The groove in the upper bolt was cut entirely through, to the original locking groove, and the back end filled with a piece screwed and soldered in place. In the lower bolt the groove was cut back part way, and the rear safety groove not filled. Both schemes work. The latter method is quicker and easier to accomplish, and allows the bolt to be assembled more easily, while the former arrangement looks better.

The shape of the locking pin and lug welded to the cocking piece can readily be seen from the photograph. No dimensions are given, as one can easily fit the parts as the work progresses.

In case the rifle is cocked and it is desired to open the bolt, the lock is pressed forward with the thumb while raising the bolt with the fingers. The criticism might be raised that this arrangement would tend to slow down the firing pin for fine target work, but the slowing down would be very slight; and, besides, this is a hunting rifle.

With the bolt lock and trigger guard safety, the rifle can be carried cocked and ready for instant use, and since the lock does not interfere with the normal operation of the bolt, subsequent shots can be fired as rapidly as desired.

The bolt handles were bent to the shape



THE WORK IN DETAIL

shown in the photograph by clamping the ball in a vise and heating at the proper point with a small welding torch while exerting a pressure on the end of the bolt. The steel must be heated carefully as it burns easily and the body of the bolt should be wrapped in wet rags to prevent annealing. The bent bolt handles are more convenient and faster to operate than the straight ones.

Sights are an interesting problem. I first made a receiver sight which was held in place by the left receiver screw and two wood screws, and wasted several good cartridges while trying to sight the rifle in, as there was no micrometer adjustment. Every time I loosened the screws the sight slipped, and I had to start all over again. Since with sights 29 inches apart, one-quarter turn of a 32 thread screw is close enough to 1 inch at 100 yards for my

use, I used screws having this thread for both elevation and windage. But I soon found that the receiver sight was too far from the eye for quick work, and made the bolt sleeve sight shown. A 3/4-inch square tool steel block was fitted around the bolt sleeve, and riveted and soldered in place. The bottom of this block was filed and lapped until it fitted the upper surface of the rear tang of the receiver. It holds the sleeve without any looseness and still does not tend to make the bolt hard to operate, as I

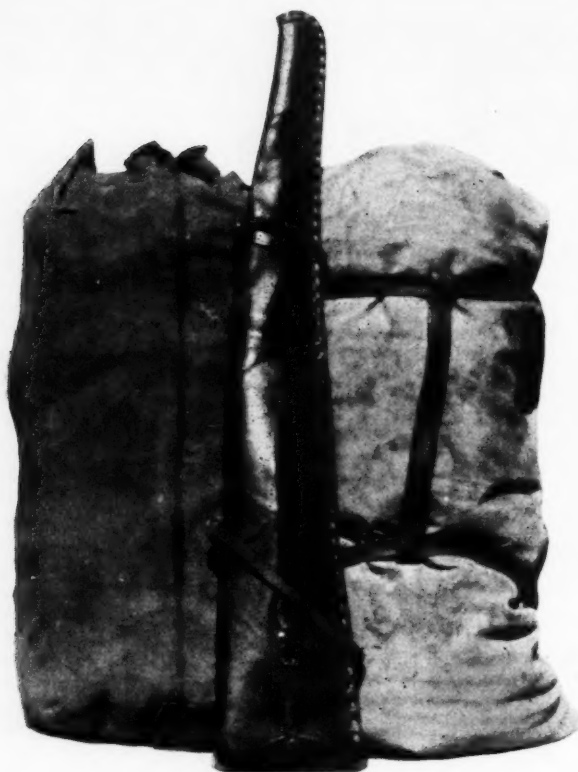
understand the springs on some sleeve sights tend to do. It also improves the trigger action by preventing an initial downward movement of the cocking piece. This is not a target sight, and adjustments have to be made with a screwdriver, as the jar of operating the bolt will loosen any screw unless it is well tightened. The homemade cocking-piece sight shown is just the right distance from the eye for the first shot, but the head has to be moved a large amount while the bolt is operated, or the sight hits one in the face. This slows down succeeding shots. My experience, therefore, shows the sleeve sight to be the most satisfactory for hunting purposes.

The Krag has also had a number of other modifications. The barrel was shortened to 24 inches, and a new front

(Continued on page 32)



READY FOR THE GAME FIELDS



ALL SET FOR THE HUNT. COMPLETE EQUIPMENT. DUFFLEBAG, RIFLE, EIDERDOWN ROBE, AIR MATTRESS, PILLOW, AND TARP

Hunting Equipment

By MONROE H. GOODE

WHETHER the joys of anticipation outweigh those of realization in hunting as in other things has long been a debatable question among nimrods, but all agree that the pleasure of selecting one's hunting equipment ever looms large in the eyes of the hunter, be he novice or veteran. That many of the big-game hunter enthusiasts from our large cities are more interested in rifles and hunting equipment than they are in actual hunting, may sound ridiculous to the man who has never studied the psychology of the hunter, yet it is the absolute truth.

Thousands in every section of the country have invested heavily in hunting equipment, and continually make additional purchases; yet they have never gone on a single hunting trip and they never will. Such persons regularly search the pages of *THE AMERICAN RIFLEMAN* and other high-class hunting magazines for new types of rifles, shotguns, revolvers, and other hunting equipment; in fact, these hunting enthusiasts read the firearm and equipment advertisements before they do the hunting articles. Announcements of newly designed rifles meet with instant response from thousands of shooters almost before the magazines are off the press. If you doubt this, you have only to visit the office of any of our leading arms manufacturers immediately following the announcement of a new arm. You will discover that they

EDITOR'S NOTE: While not all of our readers will be able to take the hunting trips Mr. Goode describes, there is nevertheless much information in this article to interest every outdoorsman, particularly that pertaining to clothing.

are literally deluged with inquiries of every character from all parts of the country.

The head of one of our firearms manufacturing establishments specializing in fine hand-made guns is responsible for the statement that not to exceed 10 per cent of the high-priced rifles his firm produced would ever be taken into the hunting field. This is a surprising statement, but its soundness cannot be challenged. Of course, it is the *intention* of the purchaser to go afield often; but somehow he never finds time to do so. Something always turns up to prevent the hunt; but nothing ever happens to prevent the purchase of a new rifle or some article of equipment. To such persons the possession of expensive hunting equipment answers the purpose of actual field excursions.

On the other hand, many hunting trips are taken because the hunter has a new gun he wants to try on game. Thus equipment frequently supplies the real incentive for the hunt, instead of being merely an accessory, as generally thought.

The type and quantity of hunting equipment required depends, of course, upon the nature of the hunt, the duration, and the section of country visited. One sportsman may hunt in the Adirondacks, another in the Rockies, and the third may travel to the mesquite country of the Rio Grande. The game hunted may vary from whitetail deer to moose, and the duration may be three days or three months.

The mode of transportation may be by foot with packs on the backs of hunters and guides; it may be by canoe, by pack train, by auto, or by aeroplane. The quantity of equipment and supplies will vary with each type of game. Obviously, the sportsman would restrict the weight of his equipment to the very minimum if he was compelled to carry it upon his own shoulders, while he might take everything from a cleaning rod to a kitchen range if he had a 2-ton truck at his disposal and was headed for a friend's ranch a few hundred yards off the paved highway.

The youthful beginner wants none of the comforts. He considers it romantic to "rough it"—the rougher, the better. A couple of blankets spread upon the bare ground or upon spruce boughs is just to his liking, while the older, softer, and perhaps wiser sportsman insists upon less of the rough stuff and more of the comforts of a modern home. He craves a fluffy mattress over box springs, and a shower

bath; a specially made saddle with divers pockets and loops for various articles of equipment; made-to-order panniers with contents listed; and a portable radio. Such is the great divergence of opinion. Consequently, few agree just what is needed; it is largely a matter of individual choice. The veteran selects his equipment with infinite care. He doesn't overequip himself, nor does he skimp. He seeks a happy medium, taking into consideration his requirements and the limitations of his transportation facilities.

This article has to do only with equipment for a three or four weeks' pack trip into the mountainous sections of Wyoming, Idaho, or Montana in the late fall in search of game ranging from deer to moose or grizzly bear, and where the outfitter furnishes all food, tents, horses, saddles, and camping utensils—everything except rifles, bedding, and other personal equipment of the hunters.

The forgetfulness of hunters is proverbial. There are so many little things for sportsmen to remember that they often forget the essentials. Some hunters forget their boots, shirts, or trousers. Others forget cartridges, and, strange to say, one fellow I knew actually forgot his rifle. Another neglected to take his hunting belt, but a short rope served to uphold his dignity. Another friend removed the strings from his hunting boots with the intention of substituting new ones, but he was interrupted and when he pulled on his boots, the strings were conspicuous by their absence. The discovery was made 100 miles from town.

The worst case of forgetfulness on

record, however, is chalked up against the writer. An air mattress and a Wood's eiderdown sleeping robe were carefully packed in the turtle back of the Cadillac, while the rest of my equipment was placed in the tonneau. Upon advice of the guide, the heavy car was left at a small village in the foothills, and the journey into the rough country was made in a Model "T" with the assistance of three good *pushers*. In the rush and bustle of a hurried departure, the bed-roll was overlooked, my carelessness costing us the loss of one day and entailing a 140-mile drive over the roughest mountain trails imaginable. (The natives called them "roads," but I thought they were a bit careless with their lingo.) It will be many moons before I hear the last of that "boner."

The following is a fairly complete list of articles comprising the hunter's personal equipment. Several of these articles may be dispensed with and yet not handicap the hunter. The experienced hunter takes as few things as possible. "Go light" is the popular watchword of the old-timer. "Go light but *right*" is the modern version of this ancient proverb.

Don't permit an inexperienced sporting goods dealer to load you down with useless junk. To do so may mar the pleasure of your trip, besides making you an object of ridicule. How many of the following articles do you consider indispensable? Take only those you feel are necessary and yet provide sufficient equipment to insure the greatest efficiency and comfort compatible with the "go-light-but-right" policy.

Wearing Apparel

Footwear: One pair light-weight (should have enough weight to insure ample strength and reasonable durability) leather boots with hobnails, Munson last.

One pair stout, low-top Army or similar shoes, made on Munson last, with hobnails, for use with spiral puttees or extra heavy, knee-length, wool socks. (Canvas leggings are noisy and for that reason are not recommended for still-hunting. Leather leggings are too heavy and should be avoided.)

One pair Maine hunting boots with crêpe rubber soles and leather tops (extra large).

Footwear is the most important article of wearing apparel the hunter has to consider, and yet more mistakes are made in selecting hunting shoes than in any other item. It is the natural inclination of the beginner to select the wrong kind of footwear—the very kind he should avoid at all costs.

The novice starts on the presumption that nothing less than a stout, double-soled, extra-heavy, reinforced boot with 18-inch tops will stand the gaff. This presumption, if followed, will lead to disaster, or at least to disgust. There is no type of hunting that calls for a stiff, extra-heavy boot, and the most effective way in which to handicap a hunter is to load him down with a pair of heavy, unbendable brogans. An extra pound on each foot will do more to cut down your speed, decrease your mileage, and increase your fatigue, than a 20-pound pack on your back. A stiff-soled boot increases one's awkwardness, and in alpine hunting one's safety depends upon



TWO SCABBARDS AND ONE CASE

the sureness with which each step is taken.

The first pair of boots I purchased for mountain hunting had 18-inch tops, were extra heavy, weighing 5 pounds, and stiffer than a poker, although made to my measurements by one of our nationally advertised manufacturers of hunting boots. I oiled them religiously but they never became pliable. I tried them out for the first time on a Wyoming hunt when the thermometer was hovering around 20° below, and two days of painful footwork almost incapacitated me for further hunting. (The boots arrived too late to break them in before leaving on the hunt.)

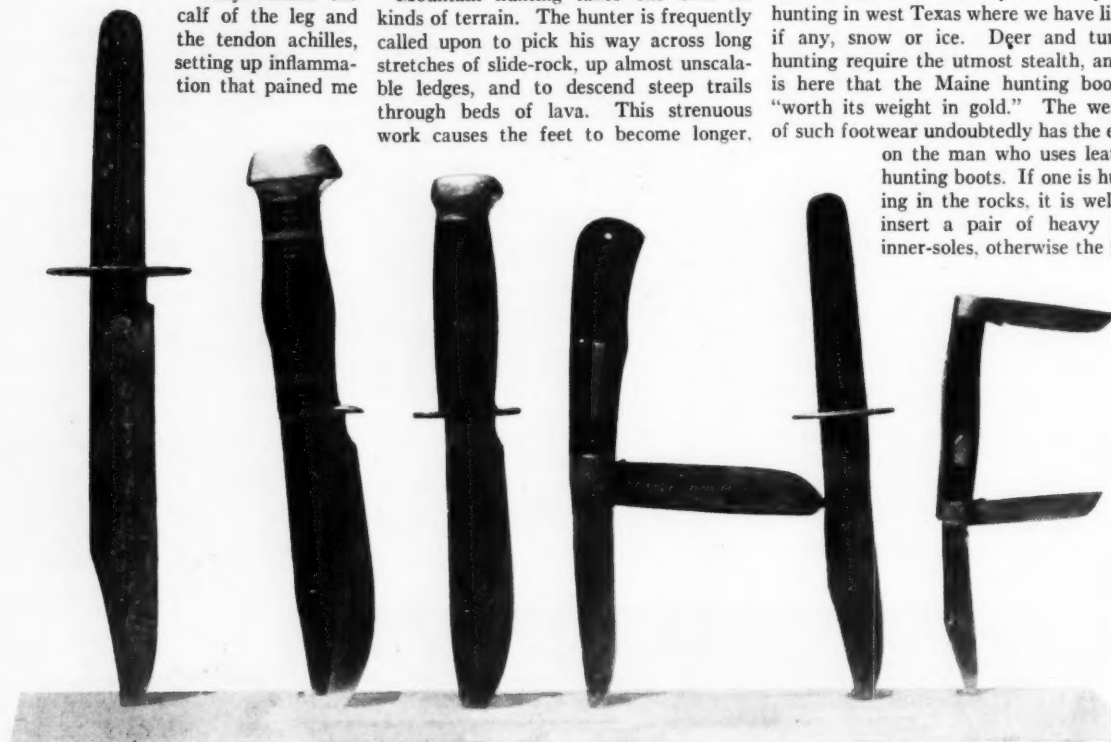
They bound the calf of the leg and the tendon achilles, setting up inflammation that pained me

The average office man does very little walking. Even the golfer probably does not average over 2 miles per day, and this leisurely stroll is made on level ground, in light, comfortable shoes, minus the 20 pounds of equipment the hunter must lug around. It would tax his strength to the utmost to carry a 20-pound pack 10 miles on level ground in the altitude to which he is accustomed, but to climb over ten miles of inhospitable rocks in the high country with this burden is out of the question unless the said office man is a modern Sampson; and the day of miracles has passed.

Mountain hunting takes one over all kinds of terrain. The hunter is frequently called upon to pick his way across long stretches of slide-rock, up almost unscalable ledges, and to descend steep trails through beds of lava. This strenuous work causes the feet to become longer.

tials of woods hunting are noiselessness and lightness, while durability, lightness, and security against slipping are required for mountain hunting.

For woods or still-hunting I have never found anything to equal the Maine hunting boot manufactured by L. L. Bean, of Freeport, Maine. This boot has a turned, crêpe rubber sole, a rubber vamp, and soft leather top. The boot is light, durable, and noiseless; it has proved ideal for still-hunting. In dry weather and in the absence of ice and snow, it is excellent for mountain work, but its tendency to slip renders it unfit for such work in the late fall. I use it exclusively for early fall hunting in west Texas where we have little, if any, snow or ice. Deer and turkey hunting require the utmost stealth, and it is here that the Maine hunting boot is "worth its weight in gold." The wearer of such footwear undoubtedly has the edge on the man who uses leather hunting boots. If one is hunting in the rocks, it is well to insert a pair of heavy felt inner-soles, otherwise the feet



THE HEAVY REMINGTON JACKKNIFE IN THE CENTER IS THE AUTHOR'S IDEA OF A REAL HUNTING KNIFE

severely. Fortunately, I had "gumption" enough to take along an old pair, and they turned the hunt into a pleasant outing instead of a horrible nightmare. I paid dearly for my ignorance, but it taught me a valuable lesson and may, after all, have been a blessing in disguise.

The big-game hunter has a pretty heavy load to carry at best, consisting of a rifle weighing nearly nine pounds with sling and magazine full of cartridges, a pair of binoculars, hunting knife, packsack, lunch, extra jacket, perhaps a kodak, and a score of cartridges—20 pounds in the aggregate. Now add to this load a "ball and chain" in the form of a pair of 5-pound hunting boots, and the hunter is laboring under a handicap he can never overcome.

wider, and larger in circumference, requiring shoes at least a size larger than dress shoes. Heavy woolen hose must be worn and this calls for still larger shoes. If the hunter is to carry a heavy pack, this will enlarge the shoe space needed. Thus, the hunting boot should be two or three sizes larger than ordinarily worn. It should be made on the Munson Army last, durable but light and pliable. It should be well oiled and, of course, thoroughly set to the foot before starting on the hunt. The oiling should be repeated at frequent intervals.

Big-game stalking can be roughly divided into two general classes: (1) woods and (2) mountain hunting. Each calls for a different type of footwear. The essen-

might become tender from walking on sharp rocks.

Shoes intended for late mountain hunting where silence is not, as a rule, so necessary as in woods hunting, must not slip on rock, ice, or snow, otherwise serious injury might result. For this work, nothing should be considered except oak-tanned shoes with flexible soles, just heavy enough to hold hobnails. Of course, they should be made on the Munson last, which is only another name for shoes that allow the foot to retain its natural shape.

The boots should be fitted with two types of hobnails: small, flat-topped nails to protect the sole from sharp rocks, and a few heavy edging, Swiss hobnails to prevent slipping. A small wrench should be

kept in one's tool kit to replace the calks as they lose out, although I have never found this absolutely necessary on a trip of two or three weeks duration.

The weight of a boot of this type should be kept to the minimum, which is more or less of a compromise between lightness and durability. If one or the other must be sacrificed, let it be durability rather than lightness, as it is wiser to wear out two pairs of light boots than to be handicapped with one extra-heavy pair that may be more durable.

There is a difference of opinion as to the proper height for footwear. In the North, low-topped shoes predominate—in fact, tops in excess of 7 inches in height are taboo; but in the rattlesnake and thorn-infested country of the Southwest, few hunters venture out in anything but high-tops, and even then sharp prickly pear needles will frequently torture the ankles and legs. That a sportsman clad in low-topped shoes would be at a serious disadvantage in such country goes without saying. For the Southwest, my preference is for a 12-inch top, but one sees great numbers of 14- and 16-inch boots which apparently are giving satisfaction. It is largely a question of how much weight one is willing to lug around for whatever protection the boot affords against snakes and thorns.

Nails often work loose in hunting boots causing discomfort and, in some instances, sharp pain, such as a companion of mine experienced last fall. We were hunting several miles from camp when one of the large nails in the heel of his boot worked up into the shoe for a quarter of an inch, rendering walking out of the question. In the absence of pliers or other suitable tools, we tried hammering it with rocks and the butt of the rifle, but to no avail. Finally, in desperation, I dismounted the bolt of his Krag and with the firing pin succeeded in pushing the nail through without the least difficulty. It isn't in the cards that a delicate firing pin should double for a punch, but wilderness hunting frequently taxes one's resourcefulness to the limit.

Shoestrings: Take along some extra leather shoestrings.

Oil dressing: It is highly advisable to take some kind of oil or leather dressing to waterproof leather shoes every two or three days while on a hunting trip.

Calks: Extra calks and small wrench.

Socks: Three or four pairs of heavy woolen socks; six or eight pairs of light

wool or, if objectionable, silk hose to be worn under the heavy ones.

Woolen socks should always be worn if there is much walking to be done, since they are exactly what is needed to keep the feet in good condition. As the Irishman says: "Wool is warm and dry when wet and cold." Heavy woolen socks not only insure warmth, but they act as a cushion that helps to break the jar occasioned by every step.

The weight of hose should be governed largely by the temperature; but in late fall hunting when low temperatures are the rule, one should wear light wool next to the foot, or if wool is objectionable, silk may be substituted, and a heavy wool sock over the light one. It is a costly mistake to wear heavy hose next to the feet, as the large ribs in such hose are

camp after a hard day's tramp in the rough country. Avoid coats lined with sheepskin; they have proved the downfall of many hunters, according to the Alaskan sourdoughs.

A waterproof duck hunting coat is satisfactory when worn with a heavy stag shirt, except that it is too noisy for still-hunting. However, they really break the wind better than a wool coat and in addition are almost rainproof; but like the mackinaw coat, they are bulky and, of course, the still-hunter avoids them whenever possible.

Jacket: Good heavy leather wool-lined jackets are generally considered superior to sweaters for turning the wind. Sweaters catch on briars and twigs, and snag easily.

Shirts: Three regulation Army khaki wool shirts with pockets.

Gloves: Three pairs of gloves are needed: a pair of heavy leather wool-lined mittens, a pair of leather wool-lined gloves, and a pair made of canvas.

The hunter should never rely on a single pair of gloves. Snow or rain will wet gloves quickly and dry ones must be substituted for them; sometimes one loses a pair; so, for various reasons it is well to have at least two pairs.

Breeches: One pair of English whipcord or all-wool Army breeches to be worn in mild weather or when hunting on foot. One pair of 20-ounce mackinaw breeches for use in extremely low temperatures or when hunting horseback.

Many sportsmen claim mackinaw breeches are too heavy for practical use in hunting fields, and at one time I was glib enough to fall for this "hokum," but I know better now. A Wyoming blizzard that drove the temperatures to 20 or more below taught me the folly of relying on light or medium-weight breeches for late-fall hunting in the high country. Thus experience is the best teacher after all.

On my next Wyoming trip my companions subjected me to considerable good-natured bantering because one pair of my breeches was made of mackinaw—"horse breeches" they called them; but the scoffers changed their tune when the blizzards hit, as they invariably do in October or November. Mackinaw breeches are not only warmer, more impervious to dampness, and less likely to tear than light ones, but they afford better protection to the limbs against snags and bruises.

Since the Swiss are acknowledged to be the world's greatest mountaineers, perhaps we would be wise to follow their ex-



THE AUTHOR ON A WYOMING MOOSE HUNT

uncomfortable to tender feet and, if persistently worn, will soon inflame the feet to such an extent that walking becomes a painful task.

Stag shirts: The hunter should select a mackinaw stag shirt in preference to a heavy coat.

A mackinaw coat is a wonderful garment in a blizzard or in extremely cold weather, but it is too heavy and bulky for the hunter who travels on foot, and is best adapted to camp use when riding horseback. I have found a 24-ounce mackinaw stag shirt, such as Filson's cruising shirt, entirely adequate when supplemented with a wool-lined leather jacket, which is my favorite hunting garment. The stag shirt is just what is needed when the hunter stops for lunch or mounts his horse for the long ride to

ample in matters of clothing. Their most serviceable breeches are made of *loden*, a heavy woolen material especially woven for the purpose. In addition to its great warmth, it is almost rainproof.

The fact that corduroy and duck breeches are cold and noisy excludes them from service in still-hunting or for use in cold climates or high altitudes.

Any breeches intended for hunting should be cut full in the knee, as nothing hampers one's freedom of movement quite so much as breeches that bind at the knee.

Belt: A strong leather belt 2 inches wide. Narrow belts are uncomfortable.

Pajamas: Fastidious sportsmen are partial to outing-flannel pajamas but they are taboo with the veteran.

He prefers to use a clean pair of woolen underwear. The underwear is less troublesome to carry and serves a double purpose, while the pajamas are useful as a sleeping garment only. Many hunters sleep in the same underclothing they have worn all day. This custom should be discouraged, for, aside from being most unsanitary, it is unhealthful to sleep in damp undergarments.

Hat: A good-grade felt hat with fairly wide, but not too wide, brim; and a woolen helmet, or a warm cap.

A heavy Stetson cowboy hat with medium-width brim is hard to beat. It should be wide enough to protect the face from sun and rain and to keep dropping snow from sliding down one's neck. But the extra-wide brims are heavy, bungle-some, and easily knocked off when one is riding through tall brush or timber.

A wool helmet is one of the finest articles ever designed to protect the face from cutting winds, especially if one is compelled to face the wind on a long ride.

A cap is not absolutely necessary where one has a good felt hat and a helmet, but is somewhat of a luxury when the temperatures drop below zero. Frosted ears are not the most pleasant things in the world, and caps are the best-known preventative.

Slicker: The hunter should include in his pack of wearing apparel a feather-weight raincoat or slicker.

If the hunting is to be done on foot, the slicker should reach halfway to the knees; a longer length should be chosen for the horseman, especially for one who does not wear chaps.

The Alligator brand of feather-weight raincoats is one of the best, if not the best, garments on the market; at least, they have always given me perfect satisfaction. This excellent coat is made of U. S. balloon cloth, the strongest woven for its weight.

There is nothing quite so good as a raincoat to protect one from the cutting

winds, providing heavy woollens are worn next to the body. With this outfit, one is admirably unfitted for a severe blizzard.

Handkerchief: One large red handkerchief or some red muslin to tie over hat while hunting. Wyoming state law requires this, and it lessens chances of getting shot. Also plenty of pocket handkerchiefs.

Underwear: Three suits of medium-weight wool, and one or two suits of heavy-weight wool underwear.

Chaps (If hunting horseback): A pair of plain leather chaps; goat hide chaps with the hair left on are too heavy, especially when wet.

Chaps are almost indispensable in hunting horseback in the late fall in the high altitudes. They are a great protection in the brush, and against snow and cold. They also save one's legs from many jabs against trees, rocks, etc. Chaps can generally be purchased or borrowed at out-fitting point.

Firearms and Appendages

Rifles: Rifle to choice. Any of the following are good: Army Springfield for .30-'06 cartridge; Remington or Winchester bolt-action rifles for this cartridge are excellent; .30-40 Winchester or Krag; Winchester .270; .35 or .400 Whelen; and .300, .350, and .375 Magnum Mauser. For woods shooting at close range the Winchester .33, .35, or .405 are satisfactory, although there are several more up-to-date rifles. Rifles of the .250-3,000, .25-35, and .30-30 class are entirely too light for use against moose and elk and should be avoided.

Many prefer to have Lyman receiver sights attached to rifle. Rifle should be thoroughly sighted in before leaving home, as you may not have a good place to sight-in your rifle in the hunting country. Furthermore, it is a bad practice to wait until the hunting country is reached to set the sights. The most unpopular man in camp is the one who persists in doing this.

If one's favorite hunting rifle happens to be a Springfield, for a few cents one can purchase an extra mainspring, firing pin, magazine spring, front sight, front-sight pin, front-sight stud pin, etc., any one of which may prove indispensable. I have an extra bolt, complete, for my Springfield, in addition to extra front sights, pins, etc.

Ammunition: If trip is to be a lengthy one, 80 to 140 cartridges should be taken. It is wise to take a surplus of cartridges, as one's sights occasionally get out of alignment and a number of cartridges may be required to readjust. The cartridges expended upon game are as a rule a small per cent of those fired.

Cartridges should be of the nonerosive, noncorrosive variety. In the .30-'06 the following are recommended: For deer, antelope and mountain sheep, Remington Kleanbore cartridges, high-speed load, 150-grain bullet, 3,000-foot velocity; for elk, mountain goat, black bear and kindred game, the 180-grain bullet in Remington, Winchester or Western brand of rustless cartridges with 2,700-foot velocity; and for moose and grizzly bear the Western brand of cartridges with 220-grain soft-nose bullet. Modern rustless cartridges save a world of work in cleaning rifles and preserve many barrels.

Rifle cover: Leather or canvas case to be used in carrying rifle on train.

Sling strap: Many hunters consider a sling strap necessary when hunting afoot in rough mountains. The strap is useful for steadying the aim at long range when the hunter has time to adjust strap, and also for carrying rifle on back when both hands are employed in climbing steep ledges, which is often necessary when hunting sheep and goats.

Scabbard: If the hunter expects to hunt horseback or ride to and from the hunting country, he should secure a leather scabbard in which to carry his rifle. It should be made of heavy sole leather and fitted with straps to fasten to the saddle.

The scabbard should be long enough to permit the rifle to be inserted slightly past the comb of the stock, otherwise, the action will be exposed to rain and snow, and receiver sight might become injured, or the rifle might slip out of the scabbard. The first scabbard I purchased was too short, and as a result the rifle jostled out on several occasions, but fortunately was always recovered. Even the regular U. S. Army scabbard is several inches too short. If the hunter really wants to protect his rifle, he should have a scabbard fitted by a first-class harnessmaker. The properly made scabbard should be 5 or 6 inches longer than the Army product if a modern high-powered rifle carrying a 24-inch barrel is to be used.

Shotgun: Not a bad idea to have one shotgun in party, and shells loaded with suitable shot for different varieties of small game.

Pistol: .22-caliber pistol for use on small game, and 200 long-rifle cartridges for same.

A large-caliber pistol is considered useless by most experienced hunters, although a few are inclined to favor them. Probably not more than one hunter out of a hundred carries a large-caliber revolver. Forget the heavy revolver unless you want to "put on the dog."

Cleaning kit: Jointed steel cleaning rod, bristle brass brush, Nitro-Solvent, metal fouling dope (if using cartridges loaded with cupro-nickel jacketed bullets), light

oil in nonleakable can, heavy grease, flannel cleaning patches, and a field cleaner. If the party camps together at all times, one cleaning kit will suffice for all.

Optical Equipment

Binoculars: A pair of first class 8-power binoculars.

These are indispensable for mountain hunting; in fact, they are almost as important as the rifle. They are not only needed to locate the game but they are necessary to determine whether the game that has been spotted offers a desirable trophy. In addition to this, binoculars often save one a severe climb in stalking an unsatisfactory trophy.

The Germans seem to have the edge on the rest of the world when it comes to making optical instruments; Zeiss and Hensoldt glasses are probably the world's finest binoculars. Bausch & Lomb are generally considered to be the leading binocular manufacturers in America.

Any binocular selected should be of the wide-angle type, affording the user a field of view at least 150 yards wide when inspecting objects 1,000 yards away, and the light-gathering power should be ample to enable one to see distinctly on cloudy days.

The selection of a hunting glass is very important and the purchaser should familiarize himself with the different brands and models before making a purchase. It behooves the frail man to restrict the weight of his glasses to the very limit, while his more robust brother may disregard the element of weight entirely.

For several years I have used Zeiss 8x40 Delactic binoculars, which are wonderful glasses but rather heavy. In my opinion, their wide field, clearness of vision, and great light-transmitting powers fully offset the extra weight.

Kodak: There should be one or two good Kodaks in the party. Take plenty of fresh film.

Flashlight: One large flashlight with two extra bulbs and two extra batteries for camp use; also smaller flashlight with extra bulbs and batteries to be carried in pocket when hunting. The latter may save you from spending a night away from camp.

Spectacles: One pair of amber-colored glasses of King's Rifleite shooting glasses; quite necessary when hunting in snow. In case the hunter is obliged to wear glasses regularly and ground to his prescription, it is highly desirable to take an extra pair of these as one pair might get lost or broken. Glasses should have large toric lenses, ground clear to the edge. The frames should be of rustless metal.

Compass: An accurate compass in hunting case should be included in the hunter's list of essentials.

A compass is not absolutely necessary for the thorough woodsman, nor for the sportsman who hangs onto the guide's coattail; yet, the best of woodsmen sometimes lose their sense of direction in fogs or in bad snowstorms. The hunter may carry a compass for years and never have occasion to use it, but comes the time when he does need it, and then it is indispensable.

Darkness sometimes overtakes the hunter when he is miles from camp, and without the aid of an accurate compass he may take the wrong direction. On cloudy days in the mesquite country of the Southwest, where great stretches of flat country are the rule, and where landmarks are few and far between, hunters frequently lose their sense of direction, although they may not be lost. The rank tenderfoot needs a compass that not only points north, but that will show him the way to camp and carry his rifle for him.

Watch: Ingersoll or other cheap watch with case. Better leave your expensive watch at outfitting point, or better still, at home.

Bedding

Bed roll: If the hunter wants the best bed on the market and his finances will permit such luxury, he should provide himself with an eiderdown sleeping robe and a high-grade, full-length air mattress. This combination is by all odds the most satisfactory bed procurable for fall hunting in the high altitudes.

The hunter who longs for the silent places, off the beaten trails, should ponder well before selecting his bedding. Snap judgment may suffice for many articles of equipment, but when it comes to the purchase of a bed, the hunter should proceed cautiously. The bed should be comfortable, warm, light, and roomy; unless the bed contains all these essentials, the hunter cannot expect the restful sleep so essential to good health, firm muscles, and steady nerves, all of which are necessary to a successful and enjoyable hunt.

The occasional hunter, accustomed to the finest of modern beds, will derive little pleasure from a hard camp bed or one that is too small to allow him to turn without awakening. It must have ample warmth, otherwise he is likely to catch cold.

There are three general types of camp beds used by trail-blazers; viz, blankets, sleeping bags, and robes.

For decades hunters have relied upon blankets for bedding, never dreaming of anything better, although they were far from perfect. In extreme cold one can pile on blankets until he can hardly "turn over," and still sleep cold because it is impossible to keep the chilled air from coming in around the edges. If several pairs of blankets are used, the weight be-

comes oppressive, and the bed roll is heavy and bulky for pack train or canoe.

In the course of time some thoughtful fellow folded his blankets into a bag, open at one end, pinning the corners with jumbo safetypins, and from this crude beginning the modern sleeping bag was evolved. Even the impromptu bag was a long step forward insofar as warmth was concerned.

If the camper has three pairs of double blankets and still sleeps cold, it is usually his own fault, even if he is without safetypins. All he has to do to remedy the situation is to fold his blankets into a sleeping bag, which is made upside down, bring the sides of the blankets to the center of the bed, and when all the blankets are correctly folded, the entire bed is inverted, forming a tight but warm bag without the use of a single pin. The bottom of the bag is then given "the bachelor's tuck" and all the sleeper has to do is to worm his way in from the top, which, of course, is left open. By following this procedure, one can sleep warm in zero weather with a remarkably small amount of bedding. The most objectionable feature of this arrangement is that the tight blankets form a sort of straight jacket, and considerable effort is required to change positions, but this is preferable to sleeping cold.

The modern sleeping bag is a great improvement over blankets. The latest designs of sleeping bags are made with a wool comforter, the wool being quilted between all-woolen flannel, and two soft all-wool blankets sewed into proper form (one of the blankets is rather heavy, the other fairly light), and a covering consisting of light cravenette material, which permits evaporation of body moisture. Such bags combine warmth, lightness, small bulk, and cheapness. However, the bag is incomplete without a heavy tarpaulin—one should have a heavy tarp regardless of the type of bed used—which serves as a ground cloth at night, a covering if needed as in the case of rain when one does not sleep in the tent, and a protection to the bed while on the trail.

In northern Alaska and the arctic circle, nearly all sleeping robes are made of tanned caribou hide with the hair left on, the other side of the skin being faced with light canvas or similar material. But such bags are rarely used in temperate climates, and we certainly have no use for them in the States.

The most suitable bedding for our mountainous sections is the eiderdown robe, which is much warmer than blankets of equal weight but not so warm as the fur robe. The eiderdown robe is made of a thick quilt filled with the feathers of the eider duck; the inside is lined with all-wool flannel, the outside with light

cravenette material, and the sides and foot are held together with snap buckles. The robes are the very best bedding ever designed for rather cold climates, like central and south Canada and the northern portion of the United States.

I purchased a Wood's eiderdown robe nearly ten years ago and have subjected it to three or four hard trips annually, yet it is still practically as good as new. I have derived a great deal of comfort and pleasure from the use of the robe, and, of course, would not consider any other type of bedding. It is light in weight, the three sizes weighing 13, 14 and 16 pounds respectively. I selected the large size—90x90 inches when opened flat—but the medium sized robe (84 x 90 inches) is warmer and would probably serve me just as well. My hunting has been confined to the mountainous section of the West, where temperatures vary from comparatively warm weather to 30° below zero, and the robe was adjusted without difficulty to the changing temperatures.

Mattress: Regardless of what kind of bedding is used, the hunter must select a mattress to protect his weary bones from the hard ground, unless he chooses to make a mattress of spruce or balsam boughs, weeds, grass, or leaves. Many types of mattresses have been offered sportsmen in recent years; a few had excellent features and all beat sleeping on the bare ground. Some were made of cotton, wool or hair, or a combination of these; others were made of felt, kapok, or similar materials. Many hunters "purloin" a heavy comforter or two from the family bedroom, later wishing that they had doubled the order.

Until the advent of the air mattress, the mattress problem continued to be a thorn in the flesh of the older man especially. From there on, it was clear sailing, perplexing bed problems disappearing as if by magic. The air mattress is a great boon to the hunter because it gives him all the comfort of the home, is light and durable, and can be used successfully on a "rock heap."

When first introduced, many mattresses were far from perfect and were continually "springing a leak." About the time the camper got comfortably settled for the night on the new-fangled bed, his tranquility was disturbed by a sound resembling escaping steam, and presently the ground seemed to rise up and spank him. However, these difficulties have practically disappeared in the better grades of mattresses, although it is still a wise precaution to take along a pneumatic patching outfit.

The mattress must not be tightly inflated, otherwise the sleeper defeats the very purpose he hopes to achieve—the elasticity so necessary to satisfying comfort. When lying on a properly inflated

mattress, one should be able to feel the ground slightly under the shoulders and hips; failing in this, he knows immediately that it is too hard for comfort.

Pillow: A large feather or air pillow should be included, as substitutes for pillows are never entirely satisfactory.

Tarpaulin: Heavy waterproof tarpaulin should always be secured to protect one's bed roll when traveling by pack train. It is also useful in protecting bed roll from dirt and dampness in the tent. In emergencies it will answer the purpose of a tent for overnight stops in clear weather.

Bags

Duffle bag: One extra heavy, waterproof bag in which to pack your personal equipment. A standard-sized bag (23x36 inches) will hold all articles listed herein except, of course, firearms, bedding, and scabbard.

Pack sack: Small pack sack to be strapped to shoulders for carrying lunch, kodak, extra cartridges, etc. This should be very small and inexpensive. Large, heavy sack is bundlesome and undesirable.

Small bag: A small bag with drawstring in which to carry miscellaneous trinkets.

Canvas carry-all: Many Army stores sell a canvas roll with one large compartment for clothing and numerous pockets for small articles, which is excellent. It is inexpensive. Never take a suitcase on a pack train.

Saddle bags: A pair of old cavalry saddle bags come in very handy when hunting horseback.

Miscellaneous

Matchbox: A waterproof matchbox should be taken by all means, and used only in emergencies. Keep an extra supply of matches for daily use.

Knife: There is one article of equipment the big game hunter should always have on his person—a first class knife.

Hunters differ on the merits of various types of hunting knives as on rifles, binoculars, and boots. Some hunters prefer bowie or sheath knives, while others cannot be hired to carry such knives. In my youth the bowie knife held a strong fascination for me, due probably to the romance attached to the name and the fact that practically all frontiersmen carried them; so, naturally, all of my knives were of this type. However, a few trips afield convinced me that such knives were unsuited for the hunter's use and that their carrying entailed considerable risk.

A close personal friend almost lost his life because he carried his needle-pointed bowie knife in front instead of on his hip, as one is supposed to do. The knife was attached to his belt on the right side of his stomach, and when the right leg was suddenly raised to step over a high log,

the knife became wedged between the stomach and the thigh, the sharp point cutting through the heavy leather sheath as readily as if it were writing paper, severing an artery and penetrating to the bone. Fortunately, we were close to town and a competent physician. This near-tragedy robbed the bowie knife of all its romance as far as we were concerned.

There is always an element of danger in carrying these knives, even when carried in the most approved manner, especially if the bearer is riding horseback or climbing among the rocks, unless the sheath is made of metal. Riveted leather sheaths have failed to protect so many times that no reliance can be placed upon them.

Personally, I prefer a heavy jackknife with two large blades; a sharp pointed one for sticking, and the other rounded off, making an ideal blade for skinning. Such knives can be carried much easier than a sheath knife, the chances for injury are eliminated, and the knife is better adapted to the hunter's needs. Remington's knife No. R-1123 is exactly what the hunter needs—strong and reliable.

For several years I used a nationally advertised knife in the belief that it was the best procurable, but when Remington placed their knives on the market, I purchased several of them for gifts to friends and found that they were infinitely superior to the well-known brand I had formerly used.

The English Sheffield and the German Henkel knives are excellent, but the designs are not so pleasing as the Remingtons.

Stone: One small carborundum for sharpening knives should always be carried by the big-game hunter.

Drinking cup: Collapsible metal or rubber drinking cup is an excellent article to take on a hunting trip, as it will relieve you of the necessity of getting down on your all fours in snow or slush to drink.

Clock: A small alarm clock is necessary.

Medicine kit: Consult your physician, but be sure to include, some adhesive tape, absorbent cotton, gauze, plenty of iodine or mercurochrome, camphor ice, throat gargle, mentholatum, bay rum or rubbing alcohol, foot ointment, nasal cream (V. E. M.), mineral oil, C. R. C. pills, spiritus frumenti (?), etc. Also, some zinc stearate powder, the finest powder known for chafing.

Tool kit: Small pliers, screwdriver, etc. One set in party sufficient.

Fishing tackle: Might not be a bad idea to have some fishing tackle in the party, although season will be rather late for fishing.

Spurs or quirt: The hunter should take a pair of spurs or a quirt. I have never

(Continued on page 30)

Reloading Some Favorite Handgun Cartridges

By WALTER F. SIMON

HANDGUN fans who usually start out with a .22-caliber pistol or revolver eventually itch to tackle the bigger bores. There is something fascinating about slamming a heavy-caliber bullet into the bullseye. The feeling is unlike anything the .22 can offer. One can plink away 200 or 300 .22 long-rifle cartridges, while 25 of the big fellows usually supply about the same amount of satisfaction. The initial cost of the arm is about the same, regardless of caliber, but it is the cost of the ammunition that runs into money unless one resorts to handloading. However, handloading is so cheap and so satisfactory in every respect that it is a wonder more shooters do not practice it.

In my own case I have sifted calibers down to three; first choice being the .44 Special, and running it a close second is the .38 Colt Automatic, then the .38 S. & W. Special.

I tackled the .38 automatic with some misgivings after having read about the necessity of full-length resizing, and of using extreme caution in measuring powders. Now, after having reloaded some 2,000 cases, I find it no harder to handle than a revolver cartridge. I never resize the cases because it isn't necessary to do so. One case out of 60 or 75 may swell sufficiently to merit resizing, but when this happens the case is simply discarded. Hard as it may be to believe, thus far I have had only one malfunction, and that was because the primer had fallen out. As for measuring powder charges, I use the Belding & Mull Visible Powder Measure. It throws charge after charge within the tenth of a grain limit like nobody's business.

In regard to bullet metal, for the first couple of hundred .38 automatic bullets I followed Mattern's recommendations, using 86 parts lead, 7 parts tin and 7 parts antimony, but because antimony requires such high temperatures and so much time to melt, I quit using it and switched to a mixture of 10 parts lead and 1 part tin. Results were about the same. In this load I use 5.5 grains of du Pont No. 5 powder.

The gun I use is the Colt .38 Super and, as a companion arm, the new .22-caliber Colt Ace. There is a battery one would need to travel far and wide to beat. I bought the .38 Super soon after it came out, and now, after shooting it hundreds

of times, I still marvel at its reliability, efficiency and deadliness as a weapon.

As concerns the .38 S. & W. Special, I have the greatest respect for its superb accuracy, but from the hand loader's standpoint its chief drawback is that the cases swell too much. I don't like to monkey around with the job of resizing cases. It takes time and is a nuisance. However, some wonderful hand loads can be developed for the .38 Special.

The .44 S. & W. Special is, among revolver cartridges, the one to write home about. When it comes to accuracy the .38 Special has absolutely nothing on it. And, boy, when you are shooting hand-loaded ammunition in this caliber you are handling a fistful!

Once a shooter starts playing with the .44 Special there is no other pistol or revolver cartridge to take its place. The fun in reloading is in trying out all sorts of powders, bullets, and loads. The .38 Automatic is fine as far as its efficiency goes, but it is not so interesting to the handloader because it admits of no great variety of reloads.

The .44 Special is ideal for reloading. Cases never seem to swell, regardless of the loads used, which eliminates the necessity of resizing. Even such experimental loads as 15 grains of du Pont No. 80 don't seem to affect cases in this respect. Incidentally, it should be added that 15 grains of No. 80 is dynamite. My favorite charges are 12.5 grains of No. 80 or 6.8 grains No. 5, back of Keith's Lyman bullet No. 429422. That bullet, by the way, is a humdinger for all-around purposes—accurate at every range and designed to knock 'em down and keep 'em down. I've tried other blunt-nosed bullets but they seat too deeply in the case, and that condition always seems to make for inaccuracy when used at ranges over 20 yards. I have never experienced trouble with leading of the barrel when using the Keith bullet, and this I attribute to the fact that it carries plenty of lubricant. A mixture of 12 parts lead and 1 part tin seems to work best.

On days when I feel particularly vicious I use a load consisting of 3 grains of No. 80 as a priming charge, and all the FFG semismokeless the case will hold, which is about 22 grains. This load is safe, burns cleanly, and packs a wallop that ought to satisfy the most depraved shooter. A few weeks ago I was doing a

little target work when one of the friends in the party who was using a .45 Automatic wanted to try a few shots with my Colt New Service Target revolver. I slipped in six cartridges containing the load described, and handed him the gun. After he had taken careful aim, the gun spoke. Wham! I was shooting another revolver meanwhile but was watching proceedings out of the corner of my eye. Evidently my friend thought all six cartridges had gone off at the same time, because after he regained his equilibrium he lowered the gun slightly and turned it so that he could see whether the cylinder and barrel were still there. No doubt he was surprised to see the revolver still intact. He didn't say a word. He was game, but I noticed that a couple of minutes passed before he continued firing.

Handloading is cheap, as before indicated. For example, the regular price of 100 .44 Special factory cartridges is about \$4, while the cost of reloading the same number comes to about 62 cents. That is bringing the price down to the same level as the .22 long rifle. At this saving in cost a shooter who reloads around 1,400 cartridges can offset the expense of owning a very complete reloading outfit costing \$50. Such an outfit doesn't need to cost him that much, either. The saving in reloading automatic cartridges obviously is much greater. In this connection I should add that I buy pure pig lead.

I find cleaning of cases unnecessary when using smokeless powders. When semismokeless is used a bath in a boiling solution of ordinary washing soda does a neat job of cleaning.

There is no reason why handloading should not be equally advantageous in rifle shooting. I wonder why it is necessary to own more than one good .30-'06 rifle, say a Winchester 54 or a Springfield Sporter? I am thinking now of a caliber larger than .22. A handloader owning a good .30-'06 has such a tremendous variety of loads at his command that he can reload for anything from squirrels up.

Aside from its economy, handloading is an absorbing pastime. It is as much fun as shooting itself. In fact, I would be satisfied to let someone else do the actual shooting of my reloads provided I could have a detailed report on each experiment. However, there is one fellow whom I know to be not in the slightest interested in that proposition.



NOTCHING A SMALL TREE WITH AN AXE. THE NOTCH SHOWN IS SOMEWHAT DEEPER THAN NECESSARY. THE BACK NOTCH IS CUT SEVERAL INCHES ABOVE THE FRONT NOTCH

THE axe for the use of campers, hunters and sportsmen generally, whether single or double-bitted, should weigh about $3\frac{1}{2}$ pounds. The blade should never be extremely long and narrow, nor yet should it be thick or stubby. The ideally shaped blade will be wide, fairly thin and of medium length. The proper dimensions for the single-bitted blade will be about as follows: Across blade at widest point, about $4\frac{1}{2}$ " and from head of axe to edge of blade, about $6\frac{1}{2}$ " to 7". The double-bitted axe blade should measure about $4\frac{1}{2}$ " to $4\frac{3}{4}$ " across blades at the widest points, and about 9" to $9\frac{1}{2}$ " from edge to edge of the blades. Both types, in the measurements given, should weigh about $3\frac{1}{2}$ pounds. Also, both types should be thin at the eye. The accompanying drawings show the best patterns of the two types mentioned.

As grindstones are seldom found in the regions usually frequented by hunters and campers, one will as a rule have to depend upon a file for sharpening his axe. Therefore it will be well to test the blade with a file before starting on the trip. The blade should have no hard spots; that is, so hard that it cannot readily be sharpened with the file. On the other hand, it should not be too soft. If too hard to file, the blade may break in extremely cold weather when chopping through hard knots, and if too soft, the edge may turn. It may be stated, however, that very seldom will an axe of reputable make be found not properly tempered, and one need worry little concerning this matter.

Before starting on the trip, the sportsman will see to it that the axe is properly ground and whetted and in perfect condition for use at any time when needed. In sharpening, unless the axe is very dull it is best not to grind or file right up to the very edge, as a "feather edge" may result. Stop near the edge, and finish with a whetstone. And here is another bit of advice: In sharpening, keep to the original shape of the blade as nearly as possible, as this shape has been found best by long experience; being

sure that the sharpening process does not leave the blade thick and stubby. This latter condition will result if in each of several sharpenings one



THE BEST WAY TO CUT A LOG IN TWO WITH AN AXE IS TO STAND ON THE LOG AND, CHOPPING BETWEEN THE FEET, CUT IT HALF THROUGH, THEN TURN AROUND AND CUT THE OTHER SIDE

grinds near the edge only, and not back from the edge as well.

As a general thing, handled axes are not as good as those purchased without handles; therefore to be reasonably sure of getting the best one had better buy the latter kind, and hang the axe himself. In hanging an axe handle, file off the sharp corners in the axe eye, as an axe handle in its lifetime is subjected to many side strains, as in prying, and the like. Unless the sharp corners of the eye are removed they will in time cut into the handle, and when an unusually severe side strain comes the handle will break. One can fit the handle to the axe eye with a draw-knife, and this tool is used by the

The Sportsman's

By **ASHLEY**

majority for the purpose. In a pinch one can make a fairly good job of it with another axe or a pocket knife. A wood rasp, however, is by far the best tool of all for the purpose.

One accustomed to hanging an axe handle will do it perfectly and in a very short time, but the inexperienced had better go slowly in order to get a perfect fit in the axe eye. And to get such a fit he will usually have to drive the handle in part way and drive it out again several times before it will be right, and ready for wedging. In doing this, note the place or places where the handle fits too tightly, and rasp these down. Do not remove the rasp marks from the finished job, as the handle left rough in the axe eye will hold tighter than if given a smooth finish. And while it is a good plan to oil the handle after it is in the axe, do not oil the part that goes into the eye, which would make it more liable to work loose than when not oiled.

The best material for an axe handle is straight-grained, second-growth hickory. Reject all handles that are so large that they do not have a springy feel to them. The ideally-shaped handle will be thin, oval in shape, and will spring sideways readily, but as readily spring back straight again. If you cannot get a handle shaped to suit in every way, get one oversize and work it down to correct dimensions. A wood file, glass and sandpaper will do the work; but lacking the file, one can manage well enough with broken window glass and sandpaper.

Do not hang an axe the full length of the handle. Fit the handle so that it will

THE BEST METHOD OF SPLITTING WOOD. THE AXE IS TIPPED SLIGHTLY THE EXACT INSTANT THE BLADE STRIKES THE BLOCK. VERY FAST, BUT NOT RECOMMENDED FOR THE INEXPERIENCED



Axe and Its Use

A. HAINES

be driven in as shown in the drawings. This will mean that a couple of inches or so will project beyond the axe eye. Split this projecting part with a chisel or strong knife blade, and drive in the wedge; then saw off what projects, and the axe is ready for use.

While many of us who have spent the greater part of a lifetime in the timbered sections prefer the double-bitted axe, men and boys who have never used an axe before are advised to begin with the single-bitted type. The experienced axeman will manage perfectly with either. The single-bitted axe will be better for driving nails, spikes, and tent stakes, though the double-bitted axe can be used for driving stakes by using the side of the axe. With the double-bitted axe you have two blades. One can be kept razor-sharp, and the other used for purposes for which you would not like to use the sharp blade.

The use that the average camper will have for an axe will be to clear camp sites, cut trails occasionally, cut down trees (seldom if ever over 8" or 10" in diameter), trim the latter, cut into suitable lengths for the camp fire, and split, etc. As some of the work will include cutting brush or small poles, it will be well to advise the beginner to avoid striking into the ground, as the axe blade will thereby be dulled. Brush and small stuff can be cut, and close to the ground, without dulling the axe if one strikes with a swinging motion much the same as in using a scythe.

In chopping down a tree, notch it on the side toward which it is desired to have it fall. If the tree stands plumb, or nearly plumb, and there is no wind and no nearby

trees to catch it, it can be felled in nearly any direction. The lower part of the chip should be cut level, but the upper part of the notch should be cut at a slope about as shown. As a rule, the front notch

should be cut somewhat over halfway through the tree. Then cut the back notch. This should be a few inches higher than the front notch, and generally of the same depth clear across the tree. One should be careful not to cut too deeply at one edge, or the tree may settle on that edge and fall in that direction. If evenly cut clear across so that the uncut portion of the wood is of uniform thickness, the tree will fall

SHARPENING A STAKE. WHEN USING AN AXE FOR SUCH PURPOSES, AND WHERE BUT ONE HAND CAN BE USED, THE AXE HANDLE IS OFTEN STRADDLED, AS SHOWN, WHICH GIVES THE AXEMAN MUCH BETTER CONTROL OF THE AXE



pieces for the camp fire, it will usually be found best to strike into the end of the blocks. Go easy at first, or the axe may drive clear through and into the ground. A person expert in splitting

HEWING A LOG WITH AN ORDINARY AXE. NOTE THAT THE AXEMAN STRADDLES THE AXE-HANDLE. SOME MEN WILL STAND ON THE LOG FOR BOTH SCORING AND HEWING, JUST AS TIE-HEWERS DO IN HEWING RAILROAD TIES

wood, or short sections of logs, almost never strikes straight into the block. And yet that is not expressed just right. He strikes straight toward the block, but gives

the axe handle a slight twist—not a pull sideways, but a twist on the long axis—as the blade touches the wood. This causes the axe head to roll over to one side, prying the wood apart rather than actually cutting it, the result being that a stick of wood is split off and thrown to one side. This man will keep this thing up all day and probably think nothing of its being anything out of the ordinary. Sometimes it will be found advisable in splitting blocks or longer lengths to strike into the side of the timber instead of the end; and there are times when striking into a knot showing at the side of the block will split it more easily than by any other method.

If it is desired to hew small or medium-sized logs or poles for any purpose, this can be done in a very satisfactory manner with our 3½-pound axe. If you are right-handed, start scoring, or "score-hacking," as it is sometimes called, working to your right, and hew back against the scoring. The scoring cuts should be three or four inches apart, and almost though not quite as deep as you intend to hew. In almost any kind of axe work it is always important to guard against striking with a chip sticking to the axe blade, as the blade is



THIS METHOD OF SPLITTING WOOD IS SAFER FOR THE BEGINNER OR THE MAN WHO DOES NOT GET ENOUGH REGULAR AXE WORK TO "KEEP HIS HAND IN"

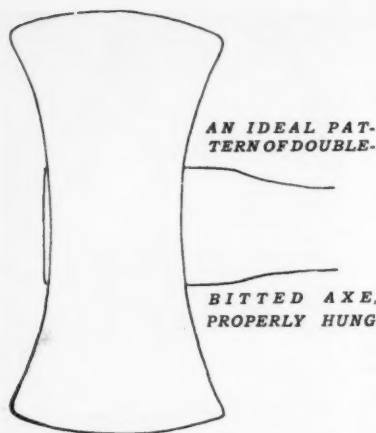
exactly in line with the front notch.

In trimming the tree begin at the butt end and trim toward the top, cutting the limbs off close to the trunk. In cutting the tree into logs or short lengths, as for firewood, stand on the tree and chop it halfway through. Then turn around and cut a similar notch on the opposite

side to meet the first one. These two notches can each be a V-notch, or one side of the notch can be sloped and the other side cut straight into

the tree. This latter method is used where it is desired to have the end of a log square, and when done properly will be nearly as perfect as if it had been cut with a cross-cut saw.

In splitting the lengths into smaller



AN IDEAL PAT-
TERN OF DOUBLE-

BITTED AXE,
PROPERLY HUNG

almost sure to glance, and one may get a badly cut foot. In hewing logs or poles, one can straddle the log and also the axe handle, or he can stand on the log to hew or score it. Also in using the axe for sharpening stakes, or for almost any other purpose where but one hand is used, an axeman has better control of his axe if the handle is "straddled." This may seem all wrong to one who has not used an axe that way, but will seem all right when he sees it done.

Even men with a lifetime of experience in the timbered sections occasionally meet with serious accidents in felling timber, and I am going to give a few suggestions which may help the beginner to keep out of serious trouble. In doing any kind of chopping, see to it that there are no limbs, brush, etc., close at hand and overhead to catch the axe in its swing and deflect it from its true downward course, for should this happen, a badly cut foot might result. When a tree starts to fall, step back to a previously determined place where you will be safe. This place may be to one side of the stump, or slightly to one side and behind the stump, but seldom directly back of the stump. If the falling tree strikes another tree, it may "kick back," or be thrown off to one side; or any one of half a dozen different things can hap-

pen to make it unsafe for a man near the stump when the tree crashes to the ground. The experienced backwoodsman seems entirely unconcerned when felling timber, but actually he has his plans all laid for a safe getaway when the tree falls; and though he may appear deliberate in his movements, he is usually well out of the danger zone before anything can happen.

A tree lodged against another tree may prove a dangerous thing to handle, but seldom will it trouble the backwoodsman, as there are several ways of getting it down safely. If the chopped tree is still attached to the stump, finish cutting it through, being sure to keep out of the way of a possible "kick back." Such lodged trees can and do "kick back," and men have been killed or injured, though standing yards back of the stump. Or sometimes it has proven dangerous to stand near the stump at one side under such conditions. If the lodged tree cannot be dislodged by the method suggested, but remains on the stump after it has been fully cut through, one can, if he works it right, usually bevel the top of the stump in such a way that the tree will slide off and fall as desired. Quite often one can force a tree off the stump by jabbing the corner of the axe blade into the stump near the tree, and carefully prying. Properly (and carefully) done, tons can be moved in this way. Also, if not done properly an axe handle can easily be broken, and nothing accomplished. But even this may fail, and the tree still remain lodged after it has slid off the stump. Then one can chop down the tree into which it is lodged, when both will fall. This will, to the inexperienced, seem a decidedly dangerous proposition, but it is not necessarily so if properly done. Chop into the supporting tree on the side opposite the lodged tree, until both trees begin to move. This will be indicated by the supporting tree beginning to spring slightly, or by the lodged tree starting to slide, or to move at the top. Now is the time to cut the back-notch and beat it to a safe place to one side. Usually one or two blows with the axe will be sufficient.

In filing a double-bitted axe, strike it into a stump, tree or log, where it will be held as solidly as in a vise, but never leave a double-bitted axe in such position, as there is always danger of someone getting severely cut by accidentally coming in contact with the blade.

A properly wedged axe handle seldom comes loose in the eye, but if a handle does work loose it is important to see to it that it is again wedged fast without delay. If in chopping the axe head flies off, someone may be seriously injured.

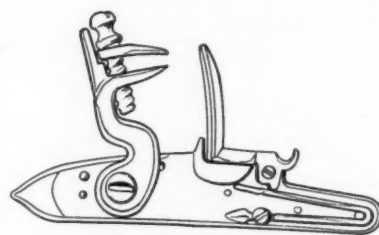
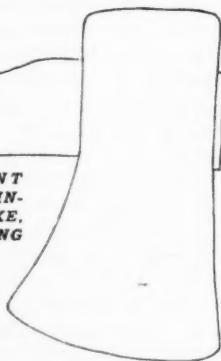
A book, and a large one, could be written about the axe and the uses to which

it can be put, and the beginner would undoubtedly learn from such a book much that would be of value to him when he finally found himself in the big woods. But it is certain that one cannot learn it all by reading. He will learn far more by working with an experienced axeman, if for only a few days each year, than from all the reading that any man can dish up for him. It is interesting to write about the axe, but far more interesting to use it.

Now a few words concerning the belt axe; and everyone going into the timbered sections on a hunting or camping trip should have one of these in addition to the full-grown axe. Although I have owned and used a number of different makes of belt axes, and found many of them good, I have had more experience with the Marble axes than with any others. The Safety axes I have used but little, but ever since the Marble No. 9 axe was placed upon the market a good many years ago, I have carried one on nearly every hunt I have taken. It seems to me to be the very best axe for the purpose that has yet appeared. The No. 10, with the nail-puller in the head, and somewhat heavier, is also good. Many like it better than the No. 9, but one will have the best whichever he gets. With a full-grown axe not at hand, it is surprising what a man can do with one of these little axes. And without something in the way of an axe a man in the big woods is surely out of luck.

The Marble double-bitted axe No. 15, with its 28" handle, is an axe one can do an unbelievable amount of work with, and there are many times one will have no need for any other. The No. 15 will be the axe one will take on trips where the pack has to be cut down to the feather-weight mark, but it must not be considered equal, or nearly equal, to the full-grown axe for all kinds of work. It may be said to be an axe of light weight that works in mighty well between the full-grown axe and the lighter belt axe. And right here it seems well to add a bit of warning when using for the first time an axe with shorter than standard length handle. "Feel" your way for the first few strokes, as many have met with badly cut feet when switching from the standard length to the shorter length handles.

AN EXCELLENT
PATTERN OF SIN-
GLE-BITTED AXE,
PROPERLY HUNG



THE AMERICAN RIFLEMAN

With the Small-Borers at Sea Girt

By AL BLANCO

WHEN this writer arrived at Sea Girt Tuesday afternoon, he found no less than four shooters already ahead of him. They were, in the order of their arrival, Thurman Randle and Gene Farren from Texas, Harold Allyn of Springfield, Mass., and Lewis Cullen of the Bayonne (N. J.) Rifle Club but residing in Staten Island, N. Y. So they took their registration numbers in the order named and to all practical purposes the Eleventh Annual Sea Girt Shoot was on.

We want to set down here some important facts so that there is a complete record of one of the greatest small-bore shoots in one of the greatest depressions the world has ever seen. Normally, about 150 shooters come to Sea Girt; and, in view of existing conditions, we would have considered about 100 shooters an excellent turnout, but all day Wednesday they came flocking in and by Thursday morning over 100 competitors and their families were in camp. In the meantime, the staff to run the shoot had arrived. Executive Officer, Brig. Gen. Winfield S. Price, had carefully selected the officers who were to run the tournament and all that was needed was the usual number of competitors. It was particularly fortunate that the committee was able to obtain the services of Capt. Walter Layman from the Office of the Chief of Infantry, War Department, Washington, D. C. Captain Layman is well known to the riflemen of the country on account of his broad experiences as a member of the Staff of the National Matches at Camp Perry, Ohio, annually. As Chief Range Officer, Captain Layman and his assistant, Maj. Henry N. Marsh of Wilmington, Del., made it possible to say that beyond question the Sea Girt Shoot of 1932 was the smoothest run of any so far held. We pay this tribute to these two officers because they bore the brunt of the work, ably backed up by Col. John J. Dooley and Maj. John W. Hession, Range Officers.

Tom Davis operated again as Chief Statistical Officer, assisted by William Runde, Francis T. Dugan and L. Q. Bradley of the N. R. A. The Finance Officer was Capt. Walter H. Leedom, and the Official Scorer was Mr. Ollie M. Schriver.

Mr. E. F. Mitchell, of the N. R. A., was in charge of the pistol shooting and that means the interests of the pistol shooters were taken care of in a manner that will insure future pistol shooting at Sea Girt on a larger and better scale than ever before.

Quartermaster Sergeant Leo Mead had charge of the issue of blankets, cots and

all the other items necessary to comfortable life in camp.

But, to get back to the shoot—Thursday, the first day of the shoot was given over to practice shooting in the form of re-entries at all ranges.

Friday morning that fish-tail breeze had increased in velocity so that it was hitting somewhere between 20 to 25 miles and, oh! what it did to the shooters and their scores.

The Eastern Team Match was the first match on the program. Eight teams entered. What this match lacked in entries it certainly made up in interest because of the closeness of the race between the D. C. National Guard team and the National Capital Rifle Club. The D. C. Guard team was composed of those old timers: Jensen, Shields, Reiley and Stokes—all of whom have been through many years of shooting at Camp Perry and Sea Girt and are seasoned shooters. Keep this in mind because what follows is of interest; it shows that between the new generation of shooters and the older, experienced shots, there is no great gap. Old Ralph McGarity brought his own boy, Donald, who has just turned 18, and his buddy, W. Jensen (son of Capt. Jensen of the D. C. Guard team), through the 50- and 100-yard stages 8 down against 9 down for the D. C. Guard team. Keep in mind that the wind was blowing great guns and yet the National Capital team put on three possibles, two of them being made by the two youngsters. It was a tied race at 200 yards between these two teams but the National Capital team dropped one too many because when the match was over both teams were tied on scores of 1,169, but the D. C. Guard team having the higher score at the longer range got first place.

Practically the same thing happened in the afternoon when McGarity took his team over the Palma Match course to a final tie with the Bear Rock Rifle Club, but was again outranked at the 200-yard range. Despite the fact that the wind was still fish-tailing at considerable velocity the National Capital Team went up to the 200-yard stage with clean scores behind them—they had not dropped a point. Those two cubs, McGarity and Jensen, were certainly having a grand time under the able coaching of the old "warhorse" himself, and it gives us a great deal of pleasure to say that young McGarity tied his Dad over the Palma course with 224. and that young Jensen trimmed the "old man" with a pretty 222. We must not forget to say that this is the first time

either of these boys ever shot in a match.

There were three big Individuals on the program for the third day—Saturday, July 2d: The Eastern Individual in the morning and the Palma Individual in the afternoon and finishing off late in the afternoon with the 100-Yard Individual. When the first order went on the line at 8 o'clock Saturday morning that old fish-tail wind was still blowing great guns. It was a good thing it came from the rear because if it had come head on or from the side nothing in the world would have kept those targets on the frames at 50 or 100 yards.

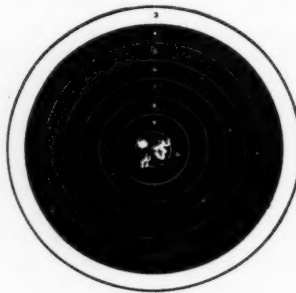
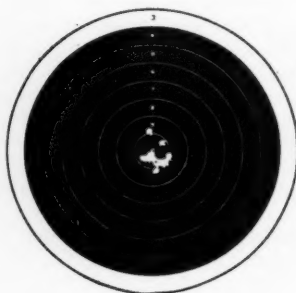
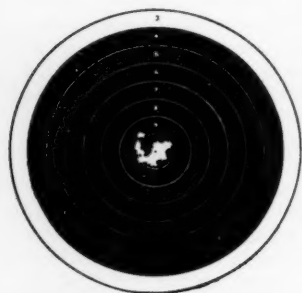
The Eastern Individual is the big match of the meeting. Exactly 87 shooters were on the firing line at 8 o'clock when the match started. When it was over at noon after each man had fired 10 shots at 50, 100 and 200 yards, the Statistical Officer posted a bulletin showing that Harold J. Wood, of Elizabeth, N. J., was in first place with the title of "Eastern Individual Champion" with a score of 294 out of a possible 300. An idea of what the wind meant may be gained from the fact that A. J. Vail, of Poughkeepsie, won the match last year with a possible score. H. M. Wolfe, of Lewisburg, Pa., was the runner-up with a 292.

The Eastern Individual is broken into three different matches, that is, each stage constitutes a separate match. The 50-yard stage was won by Alex Eisenhower, of Philadelphia, with a 9-X possible tied with F. Oswald and C. C. Held. The 100-yard stage went to H. J. Wood with the only 10-X possible of the match. The 200-yard went to W. M. Kendall, of Lowell, Ky., with a score of 98—a great piece of shooting considering the wind.

The Palma Individual was shot under the worst conditions ever seen at Sea Girt. If memory serves us right there were something like 17 possibles over the Palma course last year—all tied for first place. This year the winning score was 218 and the winner did not make a possible at any range. Mark well the name that we now give because it will be seen many times before this narrative is over. The name is William P. Schweitzer, of the Maplewood Rifle Club, Elizabeth, N. J. Tied with Schweitzer was George B. Sheldon, of Poughkeepsie, N. Y.; Gene Farren, of Texas, and John W. Hession, of New York. It was a great race. There is no doubt that the Palma course holds a strange fascination for the Sea Girt shooters and 99 competitors shot in this

(Continued on page 45)

FINE SCORES MADE WITH W NEW OLYMPIC TRY-OUT RECORD



Captain Walter R. Stokes
©Underwood & Underwood Studios

IN THE Eastern Small-Bore Championships at Sea Girt, many of the shooters whose names are always to be found around the top in small-bore competition, again hung-up remarkable records with Winchester Model 52 and Precision ammunition. As usual Model 52, the outstanding small-bore target rifle of America, dominated the field by a wide margin, with a large majority of the competitors shooting this famous arm.

The tournament was noteworthy for two outstanding features:

First, the weather,—fair but with a strong fishtail wind which quickly veered from 5 to 7 o'clock and produced such bewildering results that many of our most famous wind "dopers" gave up trying to outguess conditions that changed with hair trigger rapidity; and

Second, the remarkable shooting of William P. Schweitzer of the Maplewood Rifle Club, who carried off four of the main events on the program to create for himself an individual record of achievement that will long be remembered. Although Mr. Schweitzer shot a competitive brand of ammunition we take the utmost pleasure in offering him our heartiest congratulations on his marvelous shooting.

Some of the notable achievements with Winchester in the tournament follow:

100 yd. Individual Match

Won by Capt. Walter R. Stokes of Washington, D. C. with 199 x 200. Winchester Precision. Third, fourth and fifth places were also won with Precision.

71 Straight Bulls Eyes with Winchester Model 52

The laurel wreath of the Olympic try-outs for 1932 was won by Dr. E. D. Shumaker of Scio, Ohio, who ran through 71 straight 10's before missing a shot and took first place in this qualifying contest.

Dr. Shumaker decided last winter to take up small-bore rifle shooting seriously, so he went to his local dealer, Beall and Steele of Steubenville, Ohio, and upon their recommendation bought one of the Winchester Model 52 rifles with speed lock and semi-beavertail fore-ends which this wide-awake dealer had in stock. With his new Winchester he started to prepare himself for winning a place on the Olympic team.

How well he succeeded is shown by the targets reproduced on this page. He made a consecutive run of 71 shots in the 10 ring on the International target at 50 meters, (54+ yards) a target with 10 ring that measures only $\frac{3}{4}$ of an inch.

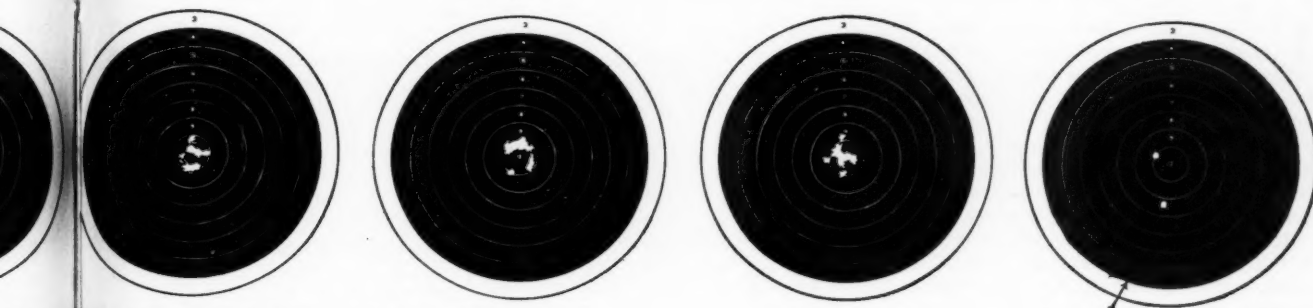
Dr. Shumaker very modestly gives most of the credit for his wonderful score to his rifle but it required clear eyes, steady nerves and an indomitable purpose as well as shooting skill to accomplish this remarkable result. Winchester is delighted to congratulate him on his wonderful shooting and is frankly pleased at this one more evidence of the uniform high standard of quality of its products as shown by the results obtained with them.



Dr. E. D. Shumaker who set a new Olympic try-out record with 71 straight 10's at 50 meters.

Reproduction in reduced size of the eight targets fired in his record of 71 straight 10's. The actual size of 1

H WINCHESTER AT SEA GIRT: CORD SCORED WITH MODEL 52



ght targets fired by Dr. E. D. Shumaker in making
actual of the ten ring was $\frac{3}{4}$ of an inch.

Palma Team Match

Capt. Walter R. Stokes of the District of Columbia National Guard Team, made one of the two possibles shot by the 36 shooters in this match. 225 x 225 with 37 V's. This was the sixth consecutive perfect score fired by Capt. Stokes over this course in competition at Sea Girt, the string including the Palma Team Matches of 1929, 1930, 1931 and 1932 and the Individual Palma matches of 1930 and 1931.

All six of this remarkable string of possibles were shot with Winchester Precision.

Eastern Individual

200 yard stage—Won by Walter M. Kendall of Louisville, Ky., with 98 x 100—Winchester Model 52 and Precision.

100 yard stage—T. Samsoe of Perth Amboy, N. J., tied for first (ranked third) with a possible of 100 x 100—Winchester Model 52 and Precision.

50 yard stage—C. C. Held, R. H. Nisbet, S. J. Vitano and Major John W. Hession all scored possibles of 100 x 100. All used Winchester Precision and three of the four used Model 52.

Four of the five highest scores in this match were made with Winchester Model 52.

Palma Individual Match

Major Hession, shooting Winchester Model 52 and Precision tied for first with score of 218 but was outranked. Two scores of 217 and two of 216 in this match were also made with Winchester Precision.

Eastern Two-Man Team Match

T. Samsoe (paired with William P. Schweitzer) made the remarkable individual score of 200 x 200 at 100 yards and 188 x 200 at 200 yards, giving him a total of but 12 points down in the match. Winchester Model 52 and Precision.

Spencer Match

Clarence C. Held made the excellent score of 184, just two points behind the winner with Model 52 and Precision. R. H. Nisbet, using Precision ammunition, turned in the fine score of 183.

Camp Perry Special

S. J. Vitano ranked second among 106 contestants with 393 x 400. C. C. Held took fifth place with 391 x 400. Each shot Winchester Model 52 and Precision.

50 yard Unlimited Re-entry

William T. Bryan and George H. Sittler each made possibles, 500 x 500. Winchester Precision.

Long Range Individual

Won by W. B. Woodring of Bethlehem, Pa., 189 x 200. Winchester Model 52.

Individual Grand Aggregate

R. H. Nisbet, took fourth place with 1070, T. Samsoe, fifth with 1070 and C. C. Held eighth, out of 61, with 1068. All shot Winchester Precision and the last two also used Model 52.

WINCHESTER REPEATING ARMS COMPANY, New Haven, Conn., U. S. A.

WINCHESTER

TRADE MARK

Joseph Whitworth's Rifle

By HEMAN L. HARPSTER

I

UNTIL about the time of the beginning of the American Civil War military rifle shooting was at a very low stage of development. It really was musketry, and accuracy had a very small part in it. The reason for this is not difficult to find; in all the world there was no such thing as an accurate military rifle as we define accuracy today.

It is true that hunting and target rifles in the United States, the south German states, and in Switzerland, had reached an excellent development as to accuracy, but in all the world there was no one who knew how to make a great number of rifles, such as an army would need, that would be uniform, and at the same time accurate. Rifles at that time were made by individual gunmakers to a large extent, who cared not a whit whether or not their rifles were exactly alike, so long as they shot well.

However, the rifle was recognized in some quarters as a much more logical weapon for troops than the musket. The British realized that their defeat at New Orleans was largely the result of rifles in the hands of Jackson's men, who opened fire at 300 yards, which was almost 200 yards greater than the maximum effective range of the British "Brown Bess." The rifle in that battle destroyed the effect of the historically famous "first volley" of musketry, and, what was of greater value to the American forces, rendered the terrible British bayonet charge an impossibility.

All of the powers used a fairly similar weapon. Invariably these were long, heavy, and large of bore, and were almost uniformly inaccurate. The most useful part of these weapons, in British hands at least, was the bayonet. Indeed it has been argued, and not without reason, that the musket of the 18th and 19th centuries would never have permanently displaced the crossbow of earlier centuries, had it not been for the invention of the bayonet.

As an experiment, the United States and the First Republic of France had tried out the rifle, but in neither case did anything permanent come of it until Minié invented the hollow-based and pointed bullet known as the "Minié Ball." This was the first firearms invention of any value since For-

sythe's invention of the percussion system earlier in the century. At the beginning of the American Civil War, nearly all the nations used the Minié ball in their rifled muskets, and the calibers were reduced from around .70 and .69 to .58 or .52.

II

In 1838 the officers of the Royal Engineers of Great Britain undertook at Chatham to ascertain what the true properties of the British service musket really were. The service gun at that time was the famous "Brown Bess," of the same model that had been used against Napoleon. It was, of course, a flintlock.

"The results," says the *Edinburgh Review*, "were certainly amusing. The target first employed was 3 feet wide and 11 feet and 6 inches high. It was struck by about three-fourths of the balls at 150 yards. With reduced charges about half hit. Above this range the difficulty of hitting was so great that the width was increased to six feet. At 250 yards, of ten shots fired with full charges, not one hit the target. At 300 yards many shots were fired, and none hit the target."

The officers gave up in despair, and proceeded to calculate a "Table of Instructions for Soldiers," as they thought it should be. Some of the instructions will appear strange to the modern reader. One paragraph in this "Table" instructed the soldier to aim, when the enemy happened to be at a distance of 600 yards, at a point 130 feet above the enemy's head!

At another trial a few years later, an "expert marksman" (how he won the title is not stated in this reference), provided with the Enfield of 1852, was ordered to fire at a target 18 feet square, from a range of 300 yards. It was found that he could not place one bullet out of twenty

in that broad area. At 200 yards the record was no better.

At the same trial a new model was brought forward, and as Sir James Emerson Tennent says in praise in his book "The Story of the Guns," "Scarcely a bullet missed the mark." And this was, please remember, shooting at 200 and at 300 yards, at a target 18 feet square.

The Duke of Wellington has been blamed many times for this state of affairs in the way of military equipment; but, according to his friend and biographer, Rev. George R. Gleig, Chaplain General of the Forces, the Duke said at one time:

"Looking to the amount of mechanical skill in the country, and the numerical weakness of our army as compared with those of the great Continental Powers, British troops ought to be the best armed soldiers in Europe."

The Duke was, however, very conservative, and would make no change as long as there was any doubt in his mind that the contemplated change was an improvement.

So, in 1851, the Duke gave his sanction to the adoption of the Minié rifle, at that time the only improvement in firearms since the invention of the percussion cap.

III

One of the earliest measures of Lord Henry H. Hardinge, when he was placed in command of Her Majesty's forces in 1852, was the institution of an inquiry into the whole subject of rifled arms and their properties.

He communicated with Mr. Purdey, Mr. Wesley Richards, and others of the prominent gunmakers of England. Six of these makers supplied pattern muskets to the Board, made up on what each considered the best plan. They varied in caliber from .530 in the smallest to .650 in the largest. Likewise arms of the various European powers, and those of the leading arms makers of the United States, were examined. The result of this inquiry was the development of the Enfield of 1853.

Arrangements were made to provide the troops with the new weapon as soon as possible, and the government equipped the factory for their production with machinery mostly fashioned after that used in the United States factory at



CYLINDRICAL WHITWORTH PROJECTILE.



TAPERED WHITWORTH PROJECTILE.

Springfield, principally upon the recommendation of Mr. Joseph Whitworth, the engineer, who had seen the factory in action during his trip to an exposition in New York.

The new arm was an improvement over previous models of the "Enfield," in that it weighed three pounds less than the Model of 1851. But there were unlooked-for deficiencies. The velocity was less than had been calculated, and the trajectory therefore higher. Most embarrassing was the fact that no two of the guns shot alike, although all underwent the same treatment and seemed alike in every detail.

"One rifle shot well," says Lord Hardinge, in his memorandum of May 17, 1854, "and another ill, and the eye of the best viewer can detect no difference in the guns to account for it."

The variation was such that the government thought that only a subtle imperfection in manufacture could account for it.

IV

The government therefore sought the services and advice of the man who was reputed to be the foremost mechanic in England. Twice he had appeared before the scientific bodies in London and had read papers he had prepared on scientific subjects of a mechanical nature. In addition, his standardized dies and system of standardized threading for screws had been widely adopted throughout the world, as well as in England. This man was Mr. Joseph Whitworth, who had recommended the use of the Springfield type of machinery in producing Enfield rifles.

Mr. Whitworth knew no more about firearms than any other educated man of his time who had never studied the subject from a practical angle. But since Mr. Whitworth was most famous for his standardized dies and standardized screw threads, and since standardization was the quality that the government desired in its weapons, the choice was considered the best that could have been made.

Mr. Whitworth was not the "inspired" type of inventor. Everything he tried to improve he worked out with carefully conducted experiments. He refused to consider an article improved until, after careful manufacture, the device in question not only functioned properly, but actually measured to a few thousandths of an inch of the true size in all parts. In this way he had built up his business

in standardized gauges and dies, and in the same way, it was thought, he could improve the British rifled musket.

However, when in May, 1854, the government asked for his aid, he refused to give it. The nature of the difficulties for the removal of which the military authorities were desirous of his advice and co-operation were imperfectly understood, and instead of instituting an inquiry to ascertain how far the imperfections which manifested themselves in the Enfield were referable to error in the gun itself, they

ducing in great numbers such an imperfect article as the Enfield, Model of 1853, on the vague chance of correcting errors, of the precise nature of which he was ignorant.

In his refusal to undertake the work he said to Lord Hardinge:

"Before undertaking the construction of machinery to make the rifle it is of primary importance to first discover what this mysterious secret is. Then a rifle may be built that shall require no further alteration."

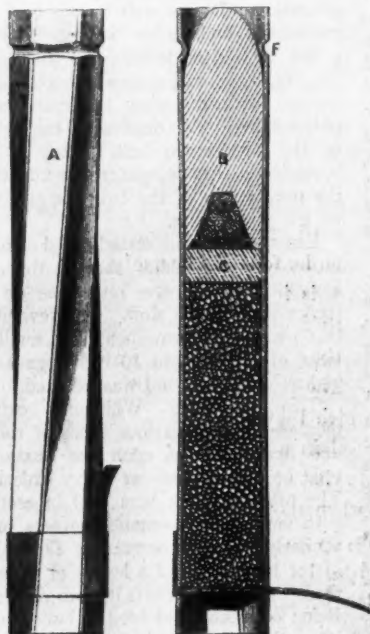
The government then proposed that he make the barrels for its weapons in his own factory, but as the barrel was the part of the gun to which his objections most closely applied, he refused the government contract, but agreed to take the arms question under advisement, to make a tour of the establishments of the principal gun-makers of London and Birmingham, and to obtain all the information possible on rifle-making.

The tour was made, and in Whitworth's report to Lord Panmure, Secretary of State for War, under the date of June 13, 1854, we find the following information on the state of the rifle-making industry:

"I found great differences of opinion among them (the manufacturers), and the statements I received were so contradictory that I was unable to come to any satisfactory conclusion."

This state of affairs he attributed to the fact that hand labor was employed exclusively in the gun industry, due to the fact that the demand for the product was limited, and that many builders of rifles worked by 'knack' instead of by measurements very carefully made. He stated further that machine labor, due to the lack of demand for rifles, could not be economically employed commercially.

Then in fulfilment of his promise to take the arms question under advisement, Mr. Whitworth made an offer to the Board of Ordnance to conduct a series of scientific experiments in order to determine the true principles on which rifle barrels ought to be constructed. He demanded that the government build a shooting gallery on his estate near Manchester at public expense, and which was to be under his own personal direction. This gallery, he specified, was to be enclosed to prevent the wind from causing variations in the point of impact. In return he agreed to do the work for the govern-



CARTRIDGE FOR THE WHITWORTH RIFLED FOWLING-PIECE.

- A. External view.
- a. The ball.
- c. Wad.
- d. Charge of gunpowder.
- e. Slip of paper, on withdrawing which the contents of the cartridge are forced by the ramrod into the barrel.
- f. A groove, to admit securing the whole by a compressed tie.

were ignorantly attributed to some mysterious deficiencies in the machinery by which the gun was made. These deficiencies the government thought to eradicate by the installation of the self-acting machinery of Mr. Whitworth. This measure, the authorities thought, would result in Enfield rifles that would be uniform in every respect, and of high quality.

But, as has been stated, Mr. Whitworth was not a maker of guns, knew little of them, and therefore thought it would be neither to his interest as a maker of accurate tools, nor to the interest of the government, to enter the task of repro-

ment free of charge, and his total findings were to be at the government's disposal.

Within this structure he proposed to conduct trials with the most accurate rifles that could be produced, and to the proven best he would apply certain tests and determine the precise form of the barrels, and so arrive at a knowledge of why they excelled. Further, he agreed to furnish the government factory with gauges of his own manufacture for the exact reproduction of the best rifle.

Mr. Whitworth had not the least doubt that by this means he could produce a rifle having the utmost range and accuracy.

Lord Hardinge emphasized to the government the necessity of making arms not only in quantity, but of a uniform high quality. He brought to the official attention the fact that before this could be done there must first be a series of experiments made to ascertain upon what such excellence might depend. The army, he informed them, needed an enormous number of rifled muskets, the cost of which could not be less than *two million pounds sterling*, and such an expenditure should not be made blindly.

"The most celebrated mechanic in the country," said Lord Hardinge, "has declined the responsibility of producing an improved weapon until most careful experiments shall have been made for ascertaining the correct principle for constructing and rifling the barrels. The government desires at the earliest possible moment one million muskets, and at the present rate, Birmingham cannot produce them in less than twenty years, and in fact can only produce them by machinery, as no gunsmith can imitate the most perfect rifle, nor does he know why it shoots well or ill, but if the secret be discovered it may be copied and Mr. Joseph Whitworth is confident he can discover it and copy it."

The assent of the Lords of the Treasury was secured in May, 1854, and two military officers were detailed to assist in the experiments. At Mr. Whitworth's request, Mr. Westley Richards was associated in the experiments for the benefit of his practical experience in gun-making. On October 13 Mr. Whitworth reported to the government that the gallery was completed. It was a structure 500 yards in length, 16 feet wide, and 20 feet high. Within two weeks, however, and before the experiments had made any headway, a storm swept that section of England, and the gallery was almost completely destroyed. It was only in March, 1855, that the experiments could go on.

The intervening time was utilized by the inventor in conducting experiments on heavy ordnance. The result was a small cannon, 13 inches in length, but musket bore as to size, that had a degree of

accuracy far ahead of anything else tested. This model was a "segment-gun" made up of six segments fitted together, welded spirally, and firing a hexagonal projectile that fitted the hexagonal bore. Later Mr. Whitworth adapted this idea to other guns, from the musket to the heaviest cannon.

V

Mr. Whitworth began his tests with the idea that perhaps the gun was not so much at fault as the projectile it fired, and that in as much as it was the projectile that did the actual work of the gun, the projectile must come in for first consideration. It was well known that the government bullet often "keyholed" within a few feet after leaving the muzzle of the gun, so various shapes of bullets were devised with the view to ending such performance. All duplicated the action of the government ball. Thus it was brought out that no matter how imperfect the proportions of the ball, the arm was no less an offender.

Experiments in increased speed of revolutions for the bullet showed that the Enfield twist of one revolution in 78 inches was far too slow. One revolution in 60 was an improvement, and finally a twist of one turn in 20 inches gave the highest accuracy, and was adopted.

This done, Mr. Whitworth experimented with the various types of rifling, and finally settled upon the hexagonal type he had devised for heavy ordnance. The projectile was hexagonal in section, with very slightly rounded corners to fit similarly rounded corners in the angles of the bore, and had a length of three to three and one-half times its own diameter. Being of mechanical fit, the bullet could be made of hardened metal, and it gave far better penetration than the regulation Enfield bullet, which perforce was of soft lead.

In one test a bullet of .45 caliber weighing 530 grains and made up of a composition of nine parts lead and one part tin, driven by a charge of $2\frac{1}{2}$ drachms of powder, passed through 15 inches of elm. The Enfield under the same conditions, except that the bullet was .577 caliber, penetrated but six inches.

The unknown secret was out at last, and the principal findings of the trials were these:

1. Improved system of rifling;
2. Twist of about four times that of the Enfield;
3. Bore considerably smaller than bore of the Enfield;
4. Elongated projectile, capable of mechanical fit;
5. More refined process of manufacture.

The Whitworth rifle was first tried officially at Hythe in 1857. There, in the

presence of high officers of the army, the superintendent of the factory at Enfield, and of General Hay, Chief of the Army School of Musketry, the rifle outshot the service Enfield in a way that left no doubt as to its superiority.

The best record for the Enfield at a range of 500 yards had been a score of 27; meaning, in accordance with the style of scoring in use at that time, that the rifle shot a group the radius of which measured 27 inches. By the same method of figuring, the Whitworth rifle gave a group of $4\frac{1}{2}$ at the same range. General Hay himself fired a group of 15 at 800 yards.

The firing at Hythe demonstrated beyond question that the Whitworth was the best rifle of the day. Still the government did not adopt the weapon, but designed a new rifle, to be made at Enfield, embodying four of the five principles shown by the Whitworth experiments to be desirable. The rifling of the new rifle, to be known as the small-bore Enfield, was to be of the old type, but was to have five lands instead of three as in the older Minié-type Enfields.

In July, 1860, the Wimbledon Exposition was held, and with it an event of more than passing interest—the first annual rifle match of the National Rifle Association of Great Britain. Her Majesty, Queen Victoria, inaugurated the match by firing the first shot. She used the Whitworth rifle, and at a range of 400 yards fired a shot that hit the bullseye, and missed the center by only $1\frac{1}{4}$ inches. (It must not be imagined, however, that the Queen actually held the gun herself, assumed the firing position, aimed it, etc. What really happened was that the rifle was placed in an elaborate machine rest in a large and magnificently decorated pavilion, and was most carefully sighted at the target by one of the best shots in Britain. When all was ready, before a great concourse of spectators and members of her court, the Queen was invited to pull a silken cord attached to the trigger. A reproduction of a famous picture of the scene will be found in W. W. Greener's "The Gun and Its Development," 1896 edition, page 722.—EDITOR.)

The London Times under date of July 9, 1860, carried the following information on the match in progress:

"The Swiss rifleman has learned to look upon the Whitworth rifle as a new power, and to desire its possession as a new sense. The weapons which were taken from these honest Switzers by the French (customs officers) will, if reclaimed, be valued only as ancestral curiosities."

VI

With all this acclaim it would seem that the Whitworth rifle was certain to be
(Continued on page 30)

Final Arrangements Completed for Important Corps Area Matches

THE work of finding available ranges and personnel and of laying out definite programs for the Corps Area Matches, which will take such an important place in the shooting program of the United States this summer, has been going ahead rapidly during the past month. The unexpectedly large turnout at the Sea Girt Small-Bore Tournament on the Fourth of July indicates that these Regional Matches will furnish a gathering point for a sufficiently large number of competitors to afford splendid competition and an excellent opportunity for the exchange of those ideas and alibis which are always such an important side line at Camp Perry.

First Corps Area

Printed programs for the Annual Matches for the United Services of New England at Camp Curtis Guild, Wakefield, Mass., August 7 to 14, inclusive, may be obtained from Maj. John H. Pembroke, Secretary-Treasurer, United Services of New England, Room 200, State House, Boston, Mass. In addition to the usual program of competitions at Wakefield, the matches there this year will include:

The Individual Civilian Club Members' Match, to be shot Sunday, August 7, starting at 10 a. m.

The Camp Perry Instructors' Trophy Match, to be shot Monday, August 8, starting at 1 p. m.

The President's Match, to be shot Tuesday, August 9, beginning at 1 p. m.

The Coast Guard Trophy Match, at 200 and 300 yards, rapid fire, to be shot Wednesday, August 10, starting at 8 a. m.

The N. R. A. Members' Match, to be fired Wednesday, August 10, starting at 10 a. m.

The Crowell Trophy Match, to be shot Wednesday, August 10, starting at 10 a. m.

Competitors in these matches will receive the regular Camp Perry gold, silver and bronze medals with a ribbon bar indicating the Championship of the First Corps Area. In addition, the winners of the Coast Guard and Crowell Matches will receive those trophies, to be retained for one year or until the next match. Cash prizes will also be awarded.

Entries in all matches scheduled to be shot in the forenoon will close at 6 p. m. the day before. For matches scheduled to be shot in the afternoon, entries close at 10 a. m. of the same day.

Third Corps Area

At Quantico, Va., the United States Marines will be hosts to the shooters of the Third Corps Area and to nearby portions of the Second and Fourth Corps Areas. The program at Quantico extends from August 24 to 27, inclusive, and includes the following matches:

The Scott Trophy Match, the N. R. A. Members' Match and the Leech Cup Match, to be fired Wednesday, August 24.

The Marine Corps Cup and Coast Guard Trophy Matches, Thursday, August 25.

The Herrick Team Match and Enlisted Men's Team Match, Friday, August 26.

The President's Match, Saturday, August 27.

Winners of the Marine Corps, Herrick, Enlisted Men's Team and President's Matches will receive the regular national trophies, except in the case of the Cavalrymen's Cup in the President's Match.

The regular Camp Perry medals and the usual

Camp Perry cash-prize distribution will be in effect in all competitions.

There will also be fired at Quantico the usual Camp Perry series of revolver and pistol matches, including the N. R. A. Individual Pistol Championship over the National Pistol Match course of fire. If enough teams enter, the N. R. A. Pistol Team Championship will also be fired at Quantico.

Complete programs covering the Quantico Matches may be obtained from the Competitions Division of the National Rifle Association.

A small-bore tournament embracing the Individual Short Range, the Individual Long Range, Short-Range Two Man Team, Long-Range Two Man Team and the customary re-entry and souvenir medal skidoo matches will be fired Sunday, August 28, beginning at 9 a. m. The customary Camp Perry medal and cash-prize distribution will also be in effect in these small-bore events.

Fourth Corps Area

The Fourth Corps Area Matches will in all probability be held at Camp McClellan, Ala., during a period early in September, which will include the Labor Day holiday. Definite dates have not been decided upon, nor has the program. Advance information can be obtained as it becomes available, either from National Headquarters, or from Dr. E. E. Sellers, P. O. Box 457, Anniston, Ala. The matches if held at Camp McClellan will be under the supervision of Colonel Smith, of the Regular Army, Commanding Officer at the camp, with the cooperation and assistance of Doctor Sellers, who is President of the Alabama State Rifle Association.

Fifth Corps Area

The Fifth Corps Area Matches, at Camp Perry, will unfortunately not include any .30-caliber events. The program will consist entirely of .22-caliber and of pistol matches.

As announced in the last issue of THE RIFLEMAN, the dates are August 30 to September 5, and the matches include the Dewar International, Railwaymen's International, Fidac International Team, Small-Bore Wimbledon, Short-Range Two-Man Team Match, the Preliminary Dewar and the Camp Perry Individual, as well as a well-rounded program of additional re-entry and single-entry matches sponsored by the Ohio State Rifle Association.

Tryouts for the Dewar Team will be conducted at Camp Perry on Saturday, September 3, and the Dewar Match will be fired on Monday, September 5, Labor Day. There will be no regional tryouts for the Dewar, and competitors desiring to place on this team will have to participate in the tryouts at Camp Perry.

The Ohio State Rifle Association has had a great deal of experience in conducting successful small-bore tournaments of several days' duration, and competitors are assured of a well-handled tournament with many attractive prizes, in addition to the National Rifle Association medals and trophies which are to be awarded in the matches indicated.

Information as to the exact dates of firing has not been received up to this writing, but interested shooters can obtain the information from Lieut. James C. Drake, 1556 Sixth Street, Portsmouth, Ohio, Secretary of the Ohio State Rifle Association.

Sixth Corps Area

The Sixth Corps Area Matches, at Fort Sheridan, Ill., will also include those shooters in the adjacent sections of the Fifth Corps Area who would normally go to Camp Perry. The program will extend from August 31 to September 5, inclusive.

The .30-caliber matches to be fired include the President's, Wimbledon Cup, Crowell Trophy, Scott Trophy, A. E. F. Roumanian Team Match and the Individual Civilian Club Members' Match.

The .22-caliber matches include the Individual Long Range, Two-Man Team Long-Range and single-entry and re-entry .22-caliber matches at 50, 100 and 200 yards.

There will also be a broad program of pistol events.

In addition to N. R. A. gold, silver and bronze medals, competitors in the Wimbledon Cup, the A. E. F. Roumanian Team, the Individual Long-Range Small Bore and the Long-Range Two-Man Team Small Bore will receive the regular national trophies for these matches.

Dates of firing are as follows:

August 31, skidoo re-entry.

September 1, 9 a. m.—200-yd. Individual I. S. R. A. Match.

September 1, 1:30 p. m.—600 yd. Individual I. S. R. A. Match.

September 2, 7:30 a. m.—Crowell Match.

September 2, 1:30 p. m.—Wimbledon Match.

September 3, 7:30 a. m. A. E. F. Roumanian.

September 3, 1:30 p. m.—Scott Trophy.

September 5, 7:30 a. m.—Members' Match.

Additional information may be obtained from Maj. D. E. Moore, Illinois State Rifle Association, Suite 1504, 208 W. Washington Street, Chicago, Ill.

The Army Officers and personnel at Fort Sheridan and the Illinois State Rifle Association are well accustomed to the conduct of both small-bore and .30-caliber tournaments, and this match is also expected to be unusually well attended and unusually well conducted.

Seventh Corps Area

In the Seventh Corps Area definite arrangements have not been completed, but it appears very probable that the old friend of the civilian riflemen of the country, Col. C. E. Stodter, former Director of Civilian Marksmanship, now commanding officer at Fort Des Moines, will be able to arrange to conduct the competitions on the Fort Des Moines range. These matches, if arranged at Fort Des Moines, will have the cooperation of the Iowa Bankers' Association and the Iowa State Rifle Association.

Additional information as available can be obtained from National Headquarters in Washington, or from Colonel Stodter at Fort Des Moines.

Eighth Corps Area

The Eighth Corps Area Matches, as previously indicated, will be fired at Fort Bliss, El Paso, Texas, September 26 to October 1. Printed programs will shortly be available upon application to Mr. Dick Cunningham, Chamber of Commerce Building, El Paso, Texas. The matches scheduled, exact firing dates not known at this time, include the Navy Match, Coast Guard, Members', President's and Wimbledon for the .30-caliber shooters, the Small-Bore Individual Short Range, Two-Man Team Long Range and Short-Range Team Match for the small-bore shooters, the N. R. A. Individual Pistol Championship and a series of single entry and re-entry pistol matches for the pistol men.

In addition to the regular N. R. A. medals, competitors in the Navy Cup Match will be competing for the Navy Cup, and the large number of cavalrymen at Fort Bliss will be given an opportunity to win the Cavalrymen's Cup out of the various trophies which are annually awarded to the individual Services in the President's Match. The small-bore shooters will have an opportunity to win the Individual Short-

(Continued on page 32)

WHITWORTH'S RIFLE

(Continued from page 28)

adopted by the British forces. And, with the exception of the hexagonal rifling, it was, as stated above. But the Whitworth rifle was, in spite of great improvement in accuracy and smoothness of manufacture, a muzzle-loader, and the day of the breech-loader was at hand. In the United States, Sharp had become famous for his breech-loading action, and the same year that saw the trial of the Whitworth rifle at Hythe saw also the production of the American "Henry" repeating rifle.

The discoveries of Mr. Joseph Whitworth were adaptable to all types of arms, both muzzle-loaders and breech-loaders, with the exception of the hexagonal and mechanically fitting bullet and rifling, which obviously could be used satisfactorily only in a muzzle-loader.

The fact is that the Whitworth rifle as it was tested in 1860, while it represented just about the highest development of the percussion and muzzle-loading era, arrived too close to the breech-loading and repeating period to become a widely used arm. The same fate befell many another excellent idea to improve the existing arms of this time.

Nevertheless we owe Joseph Whitworth a great debt of gratitude for the good work he performed in awakening the manufacturers of firearms to the fact that rifle-making was a science, and that it was not something that could be done as in "The Good Old Days."

Today the rifle-makers of the world follow all but one of the five points of superiority of the Whitworth rifle of 1860. In addition, the United States Army and a few foreign armies have used for the past several years the "boat-tailed" bullet, which is especially valuable in long-range shooting because of the increased range it gives over the flat-based type. This boat-tailed bullet is another of the inventions of Whitworth.

While the Whitworth rifle *per se* was not adopted by his country, Mr. Whitworth was not unappreciated by the nation; and, principally for his work in bringing manufacturing in general in England to a higher plane, he was raised to the peerage, and in the Encyclopedia Britannica we find his name: "Sir Joseph Whitworth, Bart. (1803-1887)."

Official Returns of the Firing at Hythe

Rifle	Range, yards	Angle of elevation, deg. min.	Mean radical deviation, feet	Remarks
Enfield	500	1 32	2.24	
Whitworth	500	1 15	.37	
Enfield	800	2 45	4.20	
Whitworth	800	2 22	1.00	
Enfield	1,100	4 12	8.00	
Whitworth	1,100	3 8	2.62	
Enfield	1,400	Shot wild. No results kept.

Whitworth..	1,400	5	0	4.62	Not tried.
Enfield.....	1,800	
Whitworth..	1,800	6	40	11.62	
All fired from fixed rest.					

(EDITOR'S NOTE.—It may interest many of our readers to know that during the American Civil War the Whitworth arms described by Mr. Harpster were eagerly desired by both parties to the conflict as the finest and most effective products of the time. By the Northern forces many Whitworth cannon were imported, and were greatly dreaded by the enemy on account of the range and accuracy of their projectiles. Several batteries of these Whitworth field guns still stand on the field of Gettysburg in the positions they occupied during the battle, where they may be identified by visitors by the hexagon form of the bore as visible at the muzzle. Many descriptions of the battle mention the shrill scream of their shells in flight—due to the sharp angles of the projectiles—as audible above the other din of the fight. By the Confederacy, 200 Whitworth rifled muskets were successfully brought in on blockade-running vessels, and these, equipped with telescope sights, were awarded to the best shots of Gen. Joseph E. Johnston's Army of the Tennessee, who won them in a competition open to the army. Their users were then formed into the crack "sniping" corps of the Confederate forces.)

HUNTING EQUIPMENT

(Continued from page 18)

seen a "dude" horse but what required one or both. Spurs impede one's walking, so perhaps a leather quirt is better.

Maps: A detailed map of the section of the State hunted will be found useful. U. S. G. C. topographic sheets of the areas hunted are a decided asset to the hunter. They should be cut into sections to fit pocket and then mounted on cloth.

Canteen: In the dry country of the Southwest, a canteen is necessary.

Chocolates: Each hunter should provide himself with a box or two of Hershey chocolates, as they are excellent in cold weather and contain considerable food value. They will make a very nice addition to your lunch.

Shaving outfit, etc.: Needles, buttons, thread, toothbrush, tooth powder, talcum powder, safetypins in assorted sizes, extra shoestrings, razor and shaving equipment, bath and hand towels, soap, toilet paper, and one small French plate mirror for shaving.

Mess kit: Sportsmen hunting in north-west Canada, where many of the guides are full-blood Indians, often take along their mess kits for sanitary reasons.

The above list of equipment was compiled for the benefit of the big-game

hunter who does not have time or inclination, or sufficient knowledge of hunting conditions, to prepare his own list, and also it acts as a memory check to the old-timer. Obviously every man who takes an occasional hunting trip cannot make an exhaustive study of problems of equipment; yet it is a subject worthy of careful, intelligent consideration if the hunter looks forward to a pleasant and successful outing.

ROUND BULLET LOADS

(Continued from page 9)

bullets equally well, this having always been my experience. Many shotguns appear to shoot high, though this may be more in the stock than in the barrel. Also, in these round bullet loads the greatest accuracy is to be had from full-choked barrels, judging simply from my own work, though the factories say the same thing. Finally, my conclusion is that simple round bullets that fit the barrel fairly well are going to drive in pretty close to the aim. If the bullets are patched, that helps, but just as the loads come they are going to prove useful for deer shooting in the woods. For many a year, in a time when rifles were scarce, deer were killed with bullets from a smoothbore. My grand father carried a smoothbore musket in the Mexican War, crossing the plains from Fort Leavenworth to Santa Fe. He killed all kinds of game with it, up to buffalo. He said that his gun shot pretty reliably into a 6-inch circle at 50 yards. I believe that; and if anybody cared to fit and patch a shotgun bullet, at the same time putting front and rear sights on his gun I believe he could do the same thing now with an ordinary shotgun. The bullet must fit the bore, though, and not go playing from side to side on the way to the muzzle; and this holds for both round and elongated bullets.

ETIQUETTE

(Continued from page 8)

are always open to all comers; that is, all well-disposed persons who observe the simple laws and rules of the public domains.

In the absence of laws testing the competency of outers and hunters before permitting them to go afield with firearms, or range the woodlands, recreation bent, it would be a safe plan for beginners to start out in the national and state forests instead of on the privately owned outdoors. Foresters, rangers, fish and game wardens, and the whole force engaged in the work of rebuilding the woodlands, stocking them with fish and game and fitting them up as free recreational ranges for all the people, are a ready reference on any outdoor topic. While they are kept busy all year round in the varied activities of making trees grow on the cutover timberlands, they always

find time to show you how the wheels go round in this interesting work, and the lessons learned in the public forests are certainly good to apply in all your outdoor ranging.

When you go into the public forests you are confronted with big, plain signs at every turn, the most frequent being those warning against the forest-fire danger, the greatest peril of the woodlands. So imminent has become this danger that in some sections matches and smoking are prohibited. With millions visiting the forests each year a system of permits for all who enter the woodlands is being advanced as an effective check on forest fires. Forest rules say that no sound timber shall be cut, barked or otherwise injured, and no bush or shrub shall be molested. There are adamant injunctions as to purity of waters, sanitation in the woods and in the well-appointed free camps, while fish and game laws are enforced to the letter. There is nothing more liable to get you into hock when you go to the public forest than your dog, whether of the lap or hunting breed; for hunting with this aid is much restricted, and the untrained hunter is not to be trusted afield with dog.

Forester or ranger will gladly take you for a woodland hike, and his hints and those ever-present warnings are the very best primer lessons for your safe enjoyment of hunting, fishing and all other outdoor ranging. Knowing public forest etiquette and applying it to your sports afield when staged on private lands does much to put hunter and farmer on friendly terms, and is the most effective antidote for those constantly narrowing open game-lands.

With good highways most everywhere, and all outdoors now thronged with the motorcades, hunting and fishing places on private lands are no longer as free as formerly, and roadside or forest plots for tent pitching, or a bungalow for the necessary summer outing, have become expensive; but with proper knowledge of the public forests, town and city dweller can readily detour attempts at profiteering for their necessary outings.

Camping for a limited time is free at the public forest camps, which are fitted up with rustic bungalows and shelters, fire-places, always plenty of firewood, tables and benches, garbage-disposal plants, toilets, pure water supply—everything necessary for camp comfort. Then, for a nominal sum, with no taxes to pay, any citizen can rent an acre or so in the public forests, and it is to about all purposes as much his land as his town or city home. He can pitch tent, erect shack, lodge or bungalow, as meager or as extensive as he desires, and thus secure a base for his sports afield or summer home for family, and it

need have no concern over restrictions on private lands.

Thousands of hunting lodges are to be found in the public forests, away back on the trails which are safe for motoring and away from farms and other habitations, and this is the way the average experienced sportsman now enjoys his hunting, fishing and other strenuous sports—a plan which anyone can adopt. The strenuous sports afield today are enjoyed by both sexes, and you are liable to meet suffragette in hip wading boots, or Diana of the hunt, most anywhere in the forests. About all normal persons, even those who have not yet enjoyed these sports, are interested, for they hope to take them up some time, and so like to read about them.

So here is the safe entry plan. Know and obey the rules and laws, and make it your business to assist in enforcing them on others. Just pack along a bit of home etiquette, and apply in all your quest of outdoor sports the restrictions which you insist upon for your home lawn or garden. In this way you will do your bit toward preserving those constantly narrowing gamelands, and you will get fish for the pan and game for the pot.

MY NATIONAL MATCH .22

(Continued from page 5)

necessitate taking the barrel out of the receiver, and it is not necessary if one fits the pin good and tight.

I next put the barrel and receiver in a National Match stock, and with a scratch awl marked out the cut to admit the .22-caliber magazine. Taking the barrel and receiver out, I put the trigger guard in place and marked the magazine cut on the under side of the stock. With a small rat-tail file I worked the notch out in the wood as it is in the regular .22 stock. Although I may never use the Lyman 48 on this arm, I made the cut in the stock for it so that I could put it back if necessary. I then assembled the gun in the National Match stock, put on the fittings, and finally, after dreaming of this job for six months, was agreeably surprised with it. The barrel fits rather tightly in the forward part of the stock groove and at the upper band, but this can not seriously affect the accuracy because several 50-foot 5-shot possibles have been made with the rifle in its altered form. I would not, however, advise putting a .30-'06 Sporter barrel in a National Match stock, for the tight fit in the groove and upper band would almost certainly affect the accuracy of this rifle.

I now have a .22-caliber Springfield rifle that is as near the same dimensions, fit and feel as my .30-'06 National Match arm as it is practicable to make it without turn-

ing down the barrel, etc. It is the same weight, balances at the same place, and has the same sights, trigger pull and practically the same bolt throw as the .30-'06 gun. My National Match has a very dense stock all the way through, which makes this arm weigh about $\frac{3}{4}$ pound more than the average rifle of this type. I picked a stock for the .22 that was very dense in the butt, but light in the forward part. This compensates for the heavier barrel of the .22 and makes the two rifles weigh within an ounce of each other, and balance at the same place.

I purchased from O'Hare some of his No. 17 targets, which are the Army A targets reduced in dimensions for 25 and 37½-yard work. These targets can be pasted and used over and over again, making them really inexpensive. With the .22 and these targets I started to work out in the three positions of standing, sitting rapid fire and prone rapid fire. I soon found this small bull to be as hard to hit as the 10-inch bull at the regular range, and I found my scores to run about the same as on the regular range with the larger-caliber arm. To verify this I had other members of the club shoot the .22 at these targets, and they shot scores almost identical with those they make on the regular target with their National Match rifles. Several weeks of practice with this National Match .22 has improved my shooting wonderfully, and I have had regularly inexpensive practice that I would never have gotten otherwise.

Should I ever wish to put this .22 back into the original stock, all that I would have to do would be to drive out the rear-sight fixed pin, remove the rear sight (base and all), and assemble on the regular stock. Also, the National Match stock that it is now in may be put on any regular .30-caliber Service or National Match rifle.

I believe that if an arm of this type were put on sale through the D. C. M. as many of them would be sold as of the regular M-1. It is so useful for practice in the military game that all who own Service or National Match arms would want one. The armory could produce it without much trouble, as all that would be necessary to make an exact duplicate of the National Match rifle would be to give the barrel the same outside dimensions, put on the rear sight complete, and make the small cut in the National Match stock for the .22 magazine.

POVERTY AND POWDER

(Continued from page 7)

by the shooter, whose inspection days would probably be over. The group shown—the first and only one obtained—was shot in prone position with rest at 75

yards. The load was 16 grains of No. 80, and not a bad load to shoot.

That load of 85 grains of black, though, was never designed for prone shooting—nor was the Winchester buttplate. Four sighters prone, and I had not only a bad headache, but also a strong ambition to stand on my hind legs and shoot like a man. Nevertheless, I am satisfied that old smoke stick will deliver her slugs with black powder, too.

Some time later I discovered an old Winchester catalog which lists the .50-95 Winchester ammunition, and gives the bullet weight as 300 grains with large hollow point. My bullet without hollow point when cast 1 to 10 weighs 310 grains. More luck than sense in making that mold! The trajectory as given in the old catalog is a little flatter than that of the .45-70-405, and the energy a little greater at the muzzle, but it falls off rapidly until at 100 yards it is slightly below that of the .45-70. These figures of course are based upon a full charge of 95 grains of black powder, while my shell requires some compression of the powder to make it hold 90 grains. Even so, that load and gun, properly handled, should deliver a terrible shock up to and a little beyond 100 yards.

Again let me say that I am not bragging about my shooting, but I am bragging about that bullet mold being, as far as I know, the only one made in this manner and casting bullets as round and as perfect in every respect as any of the cherry-cut molds I have ever used. I am not a machinist, much less an engineer, and I am not trying to tell the various concerns who have been making our good bullet molds how to do that job; but it does seem to me that where a single mold is to be made for some special bullet, a great deal of time, labor and expense could be spared if this method of mine were employed instead of making a special cherry which costs more than the mold itself.

Anyway, I got a big kick out of this whole procedure, not to mention the FG black; and perhaps I can rest in peace now for a few days—until some junk dealer shows up at the back door with another old relic from the shadowy past; and then: Hurrah, boys! bring out another keg of powder.

KRAG ALTERATIONS

(Continued from page 11)

sight fitted, this being made out of tool steel and a hacksaw blade, with a gold bead put on by a local jeweler for 35 cents. The comb was raised and a pistol grip fitted from walnut the lady of the house hunted all over town to find. The forearm and grip were checked with a

tool made from a part of an umbrella stay as once described in *THE RIFLEMAN*. A $\frac{3}{4}$ -inch section of steel tubing was slipped over the barrel and forced into place just in front of the receiver, which improves the appearance. A fore-end fastener was made out of a part of an old hacksaw blade bent around the barrel and riveted to some $\frac{3}{8}$ -inch square stock. A 10-24 screw with the sling swivel fastened into the head fits into this block and holds the forearm solidly. The forearm was shaped similar to the forearms made by Sedgley.

And so, as one man put it, the rifle cost \$1.50, the sight 35 cents, the express 70 cents, and the work \$700—but the work was fun!

Important Notice

Excise Taxes on Sales by the Manufacturer

UNDER the provisions of Sections 605 and 610 of the Revenue Act of 1932, "Excise Taxes on Sales by the Manufacturer," a tax of 10% is imposed on field glases, Type EE, Naval Gun Factory, rifles and ammunition sold by the Ordnance Department to members of the National Rifle Association and rifle clubs through the Director of Civilian Marksmanship, except the U. S. rifle caliber .30 Model 1917.

There is no tax on the sale of spare parts and accessories for rifles and ammunition components, except where a complete set of parts, possible of assembly into a taxable rifle, is sold.

The tax, at the rate of 10%, will be computed on the total cost of the article sold, which includes the cost of packing and handling.

To determine the tax on any taxable article sold through the Director of Civilian Marksmanship, add to the cost of the article the packing and handling charge and compute 10% of that amount, which will be the amount of the sales tax. Add the sales tax to the cost of the article plus the packing and handling charge, and the sum will be the sales price of the article under the new regulations.

ARRANGEMENTS COMPLETED FOR CORPS AREA MATCHES

(Continued from page 29)

Range Trophy, and the pistol shooters will be competing for the right to hold the Clarke Memorial Pistol Trophy for one year.

Ninth Corps Area

In the Ninth Corps Area, final arrangements have not been worked out. It appears likely that competitions for shooters in the northwest will be staged at Fort Lewis, and additional information as available can be obtained from Maj. I. W. Kenney, State Secre-

tary of the N. R. A., Camp Murray, Fort Lewis, Wash. For the shooters in the southern part of the west coast, matches may be arranged either at the California National Guard range at San Luis Obispo or on the Marine Corps range at San Diego. Further information in regard to these competitions will be published as soon as possible.

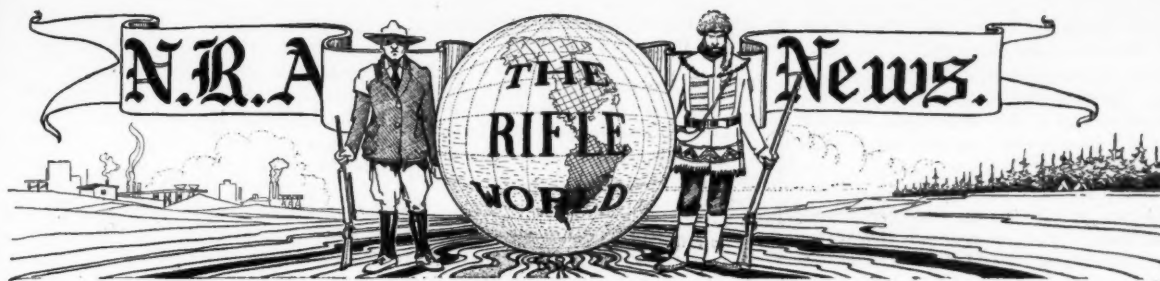
The attention of all members is directed to the fact that they may compete in any or all of these Corps Area Matches, regardless of where they may live or be stationed at the present time. These matches are set up at as widely distributed points as possible for the convenience of members, and it is not intended to limit participation in any of the Corps Area Matches merely to men who happen to be residents of that Corps Area.

There being no matches in the Second Corps Area, due to the inability of the Sea Girt officials to conduct matches there, the shooters of the Second Corps Area will naturally have to compete either at Wakefield or at Quantico. Many of the small-bore shooters in this corps area will unquestionably want to compete in the Camp Perry program. In the same way, shooters resident in the Fifth Corps Area who would normally go to Camp Perry for their .30-caliber matches will compete at Fort Sheridan with the .30-caliber riflemen of the Sixth Corps Area. It is anticipated that many of the Fourth Corps Area shooters will journey to Quantico for the matches there, and so on.

Ammunition will be available for issue to civilian competitors for competition in the N. R. A. Matches at all of the points designated. Competitors will have to furnish their own ammunition and pay for their own meals. Living accommodations in the form of tents or barracks will be provided at all of the shoots without expense to the competitors, except such laundry fee or similar charge as may be necessary to reimburse the officers of the War Department for any expense which they may be put to in connection with making the competitors comfortable.

The riflemen of the country—civilians, National Guardsmen and Regulars alike—owe a debt of gratitude to the Chief of Staff, General Douglas MacArthur, and the Deputy Chief of Staff, General George V. H. Moseley, for the sympathetic interest which they have taken in requesting officers throughout the Army and the Marine Corps to cooperate in every possible way to make these Regional Matches a success. The majority of the state adjutants general are also cooperating, and in every case the commanding generals of the nine Army Corps Areas have indicated their desire to assist in every possible way.

A spirit of good sportsmanship and mutual helpfulness is everywhere in evidence, and there is every reason to believe that all of these matches will be well worth attending.



Conducted by C. B. Baker

International Matches Are Called Off

THE International Shooting Matches have now joined the Bisley International Small Bore Match and the National Rifle and Pistol Matches on the 1932 discard list.

Definite word has come from the International Shooting Union advising that the number of nations which could send teams here would not warrant the holding of the matches.

The United States and the National Rifle Association were to have been hosts to the rifle teams of the nations of the world in matches this year, but the grave economic conditions of the world asserted themselves to upset the plans. The abandonment of the matches is a source of much disappointment to the N. R. A. and to the shooters of America generally, who had looked forward to the holding of the matches in this country.

In a letter to the National Rifle Association, Jean Carnot, President of the International Shooting Union, expresses his gratitude for the offer of this country to sponsor the matches and explains the reasons which make it advisable to forego the 1932 matches. He writes:

"I have taken good note that you are still disposed to organize the International Shooting Matches of 1932, but that you would be of accord in foregoing these matches in the case where the number of shooting teams to participate there would not be sufficiently high.

"I am particularly grateful to you for having agreed to accept at the last General Assembly of the International Shooting Union the responsibility of the organization of the 1932 matches.

"Unfortunately, the importance of the economic crisis which confronts all the nations of the world, and which was impossible to foresee in advance, at the time of the last General Assembly, has for result that up to the present only one nation

has manifested the intention of taking part in the matches this year.

"None of the federations of Europe has made us acquainted with their desire to return to the United States for the matches. On the contrary, several federations, among which is notably the Society of the Swiss Matches, have asked us for the suspension of the matches for the year 1932, as well as of the General Assembly of the Union Internationale.

"In considering the list of the 30 nations that comprise the Union Internationale de Tir, it appears as certain that there will not be more than four nations, among them the United States, that will be able to take part in the matches. And again, with the exception of Brazil, none of these nations has up to the present asked to be entered.

"In view of these observations, I have consulted the three vice-presidents of the Union Internationale de Tir who are charged with the direction of the three special sections of shooting which have been formed, and the Bureau of the Union Internationale de Tir, have unanimously thought that it is far more reasonable not to oblige the two federations of the United States to engage for this year in the expenses of organization, which would be unproductive by reason of the small number of shooters.

"Consequently, my dear Mr. President, I have the honor to advise you that the Union Internationale de Tir had decided to forego the international matches for 1932, as well as the General Assembly.

"The Bureau expresses to you its extreme gratitude for the intentions which you have manifested to organize the matches, and it hopes that the next General Assembly of the Union can again confide in you this organization, when the economic situation of the world will have become better."

OLYMPIC SQUAD CHOSEN WITH CAPT. CROSSMAN AS MANAGER

THE Olympic Rifle Squad as selected by the Olympic Rifle Committee on the basis of scores fired in the regional tryout matches comprises the following: Principals: Dr. E. D. Shumaker, Scio, Ohio; Lieut. Rom D. Stanifer, 179th Inf., Altus, Okla., and William G. Harding, Los Angeles.

Alternates: Howard Shambarger, Columbus, Ohio; Harvey A. Mutch, Enterprise, Oreg., and W. B. Woodring, Bethlehem, Pa.

The scores fired by them were: Dr. Shumaker, 600 plus 11 bulls; Lieut. Stanifer, 600; Harding, 598; Shambarger, 592; Mutch, 591; Woodring, 589.

Capt. E. C. Crossman, of Los Angeles, Calif., has been appointed as manager of the team. Known to all shooters, not only for his shooting but for his numerous writings on the subject of shooting and arms, Captain Crossman needs no introduction—the value of the service he will render in behalf of the American riflemen is well recognized.

No alternate will be sent to Los Angeles unless any of the principals shall not be able to make the trip.

FIDAC MATCH AT CAMP PERRY

THE Fidac International Team Match, of which the American Legion Team is America's representative, is scheduled for Sunday, September 4, during the Ohio Regional Matches at Camp Perry. Tryouts for the American team are now going on in postal matches, which will also decide the National American Legion Individual Small-Bore Champion.

The tryout matches are being shot over the Fidac course, 20 shots at 50 meters, 5 shots per target on 4 targets, metallic sights, prone, open to all Legionnaires in good standing. Targets are to be sent for scoring to the American Fidac team captain, R. E. Loudon, 132 American Ave., Butler, Pa., not later than August 15.

Two teams will be selected, a first team of 10 shooting members and 2 alternates, and an alternate team of the same number. Selection will be based on the try-out scores plus past experience, but no one will be selected who does not fire the tryout course.

Team members will be notified of their selection on August 18. Any further information desired may be obtained by writing the team captain.

ILLINOIS EVENTS

THE annual Dewar Course Match of the Illinois State Rifle Association, fired June 12 at Fort Sheridan, brought out the largest crowd that ever attended. A perfect day with moderate temperature, good light, and a minimum of wind contributed in part to the excellence of scores.

The iron-sight boys had a regular field day for top-notch performances and, in doing so, uncovered a group of promising candidates for the Dewar squad. "Brother Mackarel" Taylor, official scorer, was quickly swamped in a deluge of big totals and Major Moore, president of the I. S. R. A., E. H. Wilson, director of small bore, and E. L. Lord, of the Austin Rifle Club, had to rush to his rescue.

Led by Brad Wiles, Louie Schmeidl and Fred Johansen, the ten leaders turned in an aggregate of 3,935, 10 points better than the total registered in 1931 by the American team at Bisley. Ten places down the list the resulting aggregate, 7,836, compares not unfavorably with the average scores of Dewar teams in the past 5 or 6 years.

Many of the younger group of shooters participated. Bob Delprat, competing his first season outdoors, placed ahead of a number of seasoned veterans. P. Schick, who captured the "high tyro" medal with a 387, was only a point or two ahead of 3 other promising tyros, H. E. Mueller, H. Eickel and B. L. Anderson.

In the order in which they placed, the 10 high were: Bradford Wiles, 396; Louis Schmeidl, 396; Fred Johansen, 395; H. N. Smith, 394; E. J. Neuman, 393; E. H. La Rue, 393; E. E. Fullmer, 392; C. E. Nordhus, 392; R. F. Lovell, 392; E. B. Selleck, 392.

Bell Wins Team Match

Illinois Bell Telephone Company, Chicago, found "753" the right number for outscoring all other clubs in a 200-yard, any-sight, four-man team small-bore match fired June 5 at Fort Sheridan. This was the second team event in the I. S. R. A.'s summer program.

Don Wilson, anchor man for Hyde Park "Y," with 190, brought his team to within 3 points of the total of the winners,

ANNUAL N. R. A. MEMBERS' MEETING SEPT. 18

THE annual meeting of the members of the National Rifle Association will be held at 2 p. m. Sunday, September 18, 1932, in the Hotel Pennsylvania, New York City.

As required by the by-laws of the Association, there being no National Matches this year, the Executive Committee has directed the Secretary to advise all members that the annual meeting for the election of Directors and transaction of such other business as may properly be presented shall be held at the time and place as above designated, notice to be published in two consecutive issues of THE AMERICAN RIFLEMAN, the official journal of the Association.

A quorum of 25 life or endowment members will be required to elect Directors. Annual members have the privilege of the floor but only life members or endowment members have voting privileges.

but Brad Wiles, of Midway, earned enough extra points with a 193 to tie his club with their old rivals. On the basis of ranking, the Midway veterans took precedence. Ridgeville Rifle Club was fourth, only 6 points out of first place. Austin, with Louie Schmeidl getting 191, brushed Chicago Rifle Club aside in the fight for fifth.

The scores: Illinois Bell Telephone, 753; Midway Rifle Club, 750; Hyde Park Y. M. C. A., 750; Ridgeville Rifle Club, 747; Austin Rifle Club, 746; L. G. Aldrich, 739. &—J. SHERWIN MURPHY.

SECOND NORTH JERSEY SHOOT

THE Second Annual North Jersey Championship Shoot was held at Nomaheagan Park Range, Union County, N. J., on June 4 and 5, with Harold J. Wood, of Elizabeth, presiding, and B. P. Emmrich as range officer.

From Saturday noon all through Sunday, the thermometer hovered around 90 degrees in the shade. Starting Saturday at 1.30 p. m., with re-entries at 50, 100 and 200 yards, the "alibi boys" started at once as the mirage at 200 yards reminded one of a heavy sea at Sea Girt.

On Sunday morning the boys from New York and Pennsylvania were on the line promptly at 10 a. m. After the smoke cleared away and the targets had been scored, W. T. Bryan, of Roslyn, Pa., shooting a Winchester 52 Palma V's,

coming through clean at 50 and 100 yards and with 98 at 200 yards, was high man. W. Walsh, of Union City, shooting a Winchester 52 and Winchester precision, with 98 at 50, 99 and 100 and 96 at 200, was second, and the old veteran, H. J. Wood, shooting a Winchester 52 and Winchester precision, against all his former convictions, was third with two 98's and a 96 at 200.

JERSEY RIFLE ASSOCIATION

SINCE the formation of the Jersey Rifle Association last fall, it has been very active. Doremus Post, East Orange Rifle Club, Garfield Riflemen's Association and the ORYMCA Rifle Club joined the Association the past spring. Some of the clubs specialize in high-power shooting and some in small-bore shooting.

Close relations are being woven between the J. R. A. and the New Jersey Civilian Rifle Association. Judge Roy S. Tinney, of the latter organization, is generously supplying both associations with reprints of his weekly series of interesting articles, "The Man on Post," initially published in the *Chatham Press*.

After the close of its 1931 high-power, iron-sight, four-position six-stage match, described earlier, the J. R. A. began its 1931-1932 small-bore, iron-sight, four-position matches, 8 men shooting on each team, 5 high counting. Each team shot twice against each other team at whatever distances the "home team" had available. The winner was the Ridgewood Rifle Club, which also made the high match score, 915. The trophy, a handsome plaque, will be on exhibition at the Station Garage of William Troeger, of the Ridgewood team.

The number of matches won and lost by each team follows:

	W	L
Ridgewood Rifle Club	9	1
Silk City R. C.	7	3
Bogota R. C.	6	3
Monticello R. C.	4	7
Roxbury R. and P. C.	2	6
Doremus Post	0	1
Radburn R. C.	0	3
Garfield R. A.	0	4

In addition to the scheduled matches, the Ridgewood club shot 9 other matches, winning 6. This club points with pride to a set of 4 targets shot with telescopic sights by Morgan G. Holmes, of Montvale, that are "on the wall" of its range. These targets score 50 prone, 50 sitting, 49 kneeling and 47 standing; total 196. This score ties that which John Minarick, Jr., the range officer, made in December, 1930. A few weeks later, Mr. Holmes turned in an iron-sight set of targets that totaled 194.

On May 22 the J. R. A. began its high-power match, which is being shot in 6 stages, one a month with iron sights at

10-inch bulls at 200 yards, on the ranges of the Silk City Rifle Club at Garrett Mountain, near Paterson, and the Roxbury Rifle and Pistol Club at Maise Mountain, near Dover. Each team consists of 7 men, 5 high counting. The course is 5 shots sitting, 5 shots kneeling and 10 shots standing, all slow fire, and 10 shots sitting from standing in 60 seconds. Possible per man is 150 and per team, 750.

The results of the first stage:

Co. G, 113th Inf., Team A, 671; Co. G, 113th Inf., Team B, 586; Headquarters Co., 113th Inf., 528; Monticello R. C., 562; Ridgewood R. C., 620; Roxbury R. and P. C., 660; Silk City R. C., Team A, 650; Silk City R. C., Team B, 582; Troop B, 102d Cav., Team A, 641; Troop B, 102d Cav., Team B, 545.

The second stage was completed June 12 by some of the teams and the slow-fire part by the remaining teams with the rapid-fire part postponed, because of bad weather conditions, until the date of the third stage. A summary of the three stages will be given later.—JOSEPH JESSUP, *Publicity Officer*, Jersey Rifle Association.

ROCHESTER VS. TORONTO

THE first leg of the annual matches between the Rochester (N. Y.) National Defense Contingent and the Irish Rifle Club, of Toronto, Ont., was fired on the range of the R. N. D. C. at West Rush, N. Y., June 26. Two matches are fired on each leg, totals for the year determining the winner. The Thompson Trophy Match is fired at 300, 500 and 600 yards, 10 shots, prone. Service rifles of the United States and Great Britain, and the Miller Trophy Match is fired at a distance determined by lottery, which in this instance was 600 yards.

Before the Thompson Match, at the distance as determined by lottery, competitors interchange sufficient ammunition to fire the Miller Match. Upon completion of that stage of the Thompson Trophy Match, rifles are exchanged, sights unchanged, so that the Canadians fire Springfield and the Americans, Enfields. Using the ammunition previously interchanged the Miller Match is fired.

The R. N. D. C. won the Thompson Trophy Match, 1,402 to 1,358, but dropped the Miller event, 278 to 286. Sixteen R. N. D. C. and 15 I. R. C. members fired, 10 high counting.

Accompanying the Canadians, in addition to the families of some, were Messrs. Spence and Dempster, the former a Member of Parliament from Ontario, and the latter the Secretary of the Dominion Rifle Association. Hon. G. E. Pierce, of the Supreme Court of New York State, was also a spectator. The Canadians were cared for in the commodious club house of the R. N. D. C.

The return match will be fired on the

Dominion Range at Long Branch, Ont. (Toronto), September 17.

NEW ORLEANS MEET

THE Third Annual Rifle and Pistol Matches, sponsored by the New Orleans (La.) Rifle Club, Inc., were held June 19 at the Shrewsbury range, Metairie Ridge, New Orleans. They drew an attendance of several hundred and an entry list of nearly 200.

The matches were efficiently conducted by Lieut. F. O. Rudesill, Cav. Res., executive officer; Capt. John F. Talbot, U. S. M. C., chief range officer; Capt. Chas. W. Chalker, U. S. A., Dr. F. A. Overbay, Miss Fabiola LeBlanc and Lieut. E. H. LeBlanc, Q. M. Res., statistical officers; Lieut. J. Gibbens, Cav. Res., and Lieut. Sidney Wogan, Cav. Res., range officers, assisted by a number of Marines and National Guardsmen. Troops 6 and 14, Boy Scouts, assisted as runners. Attractive trophies were awarded the winners.

The Regular Army Match was won by the New Orleans Rifle Club team, composed of Lieut. P. H. LeBlanc, score 182; R. H. Church, 174; Miss Margaret Constantine, 186; Lieut. Lewis J. Raemon, 194; Miss Gertrude Sanders, 173; and Mrs. Eunice L. LeBlanc, 182; total score, 1,091. Second was Troop I, 108th Cavalry, Louisiana National Guard, 1,055. Third place was taken by Headquarters Troop, 108th Cavalry, La. N. G., 1,049. Lieut. Raemon, Inf. Res., Anniston, Ala., a guest member of the New Orleans club, won the high individual trophy in this match. He is the present Alabama State Pistol Champion.

The New Orleans Individual Prone Match, 50 yards prone, was won by Lieut. Raemon with 98; second, George E. Muller, 96; third, Ben Dahlen, 96.

The Crescent City Rifle and Revolver Club Match, 20 shots prone at 100 yards, was won by Sergt. A. E. Miller, Troop I, 108th Cavalry, La. N. G., with 197; second, Sergt. O. A. Powell, U. S. M. C., 192; third, Lieut. Rudesill, 189.

The Baldwin and Company Match, 50 and 100 yards prone, was won by Sam Matherne, 194; second, Sergt. Powell, 194; third, Sergt. J. G. Moore, U. S. M. C., 192.

The Myers Trophy Match, a 15- and 25-yard pistol event open to police teams of New Orleans only, was won by Police Headquarters team, composed of Preston Friloux, score 98, and Arnold Condon, 98; total, 196. Second place was taken by Third Precinct (Emile Poisenott, 93, and Charles Boudreaux, 90; total, 183.)

In the New Orleans Rifle Club Pistol Match, 15 and 25 yards, high civilian was Sergt. J. W. Thomas, U. S. M. C., ret., 100; high police officer, Preston Friloux, 100; high service, Lieut. Powell A. Casey,

98; high lady, Mrs. Eunice L. LeBlanc, 92.

All-Service Pistol Match, 15 and 25 yards: High reserve officer, Lieut. B. F. Farrelly, Eng. Res., 96; high all-service, Sergt. A. Easterling, La. N. G., 96; second, Lieut. Rudesill, 96.

The National Guard Pistol Match, 15 and 25 yards, open to National Guardsmen only, was won by Lieut. Rudesill with 98; second, Lieut. Casey, Washington Artillery, La. N. G.

The 1933 matches are expected to be the largest in the South. Information may be procured from the club secretary, Lieut. P. H. LeBlanc, Jr., Q. M. Res., 1834 Dublin St., New Orleans.—LIEUT. P. H. LeBLANC, JR., Q. M. Res.

MARYLAND PISTOL MEET

DESPITE plenty of bothersome weather, the Maryland State Pistol Matches, fired June 11, 12 and 19 at Fort Howard, held the large field of competitors at the firing line with an interest and spirit that did not slacken. The meet was a decided success and a big event for the Maryland and visiting shooters.

Private G. M. Stewart, of the Washington (D. C.) Police Department, won the honors in the Individual Police Pistol Match with a 284 score. The next 4 in order were: T. Maxwell, Baltimore Police, 281; A. Schuber, New York Police, 280; C. Migliorine, New York Police, 277; J. Wendell, New York Police, 276. Twenty-two were entered in the match.

The Police Team Match resulted as follows: New York, 1,386; Baltimore, 1,306; Maryland State, 1,237.

The Open Individual Pistol Match drew 35 entries. Graydon Ware, Baltimore Police, came off the victor with 272. The next 4 were: H. Koehler, New York Police, 269; A. Schuber, New York Police, 268; A. Sackett, New York Police, 267; M. Q. Milburn, Maryland Rifle Club, 264.

The Baltimore Police won the Open Team Match with 1,305. The other entries finished as follows: U. S. Coast Guard, 1,261; Maryland Rifle Club, 1,254; Maryland State Police, 1,206; Baltimore-Washington Club, 1,147; Company D, 12th Inf., 1,128.

In winning the Army Individual Match, Ensign G. C. Lindauer, U. S. Coast Guard, had a tight squeeze. He shot a 272, while James C. Alligood and Lieut. S. C. Linholm, both of the Coast Guard, turned in 271 and 270, respectively. E. A. Elgin, U. S. Navy, was fourth with 265 and M. W. Milburn, also of the Navy, placed fifth with 262. Nineteen fired the match.

High man in the re-entry event was E. A. Elgin with 93.

Maj. Thomas G. McNicholas was the executive officer of the matches.

State Records Broken in Oklahoma Meet

THE seventh annual matches of the Oklahoma Rifle Association were fired June 12 and 13 on the Gen. Charles F. Barrett range, near Okmulgee, with the Mistletoe club as host for the third consecutive year. The range is one of the most ideally located and probably the best equipped in the state. C. F. McCubbin, of Dallas, Tex., veteran statistical officer, was on hand to handle his pet detail, and Thurman Randle, representing the N. R. A., paid his first official visit to Oklahoma.

Sixty-four men and women turned out for the Small-Bore Championship Match (Dewar), the first event on Sunday. Harry L. Wilson, of Ardmore, won with 396, a new state record. Henry E. (Chief) Keotah, of Oklahoma City, was second with 392, and Hugh A. Neal, Ardmore, had 391 for third. The Ardmore team, over the Dewar Course, set up another new record, 1,953. Tulsa was second, 25 points behind.

The Schuetzen Match brought out a weird assortment of guns and gadgets, some of which failed to click. Henry Jennings, of Wewoka, using a single-shot Hornet with hunting scope, won with 82. Capt. W. B. Wilson, of Ardmore, using a .30-'06 "bull" gun with set trigger and Fecker scope, had 81. Harry E. Brill, of Tulsa, with 79, was third.

Jesse C. Berger, of Drumright, took the 300-yard Army Rifle Match with a 10-shot possible plus 3 bulls. Herbert Sitler, of Beggs, turned in a possible plus 2 bulls, and R. C. Rudell, of Drumright, had a possible for third place. The Drumright team set a new state record in this match with 242 x 250. Wewoka, Ardmore and Oklahoma City finished in the order named, each with 236.

Scores in the 200-Yard Rapid-Fire Match showed a lack of preparation on the part of contestants. Capt. W. B. Wilson, assistant coach of the Infantry team last year at Perry, posted a 47 to win. C. C. Crabb, of Luther, and Harry L. Wilson had 46's for second and third places. From there, scores faded rapidly, low man having a 12.

In the 600-Yard Any-Rifle Match, always popular, all previous records went tumbling. Eric Johnson, of Ardmore, ran the first 20-shot possible and had 15 V's, enough, ordinarily, to win. Eric was combining an N. R. A. postal match with the state entry so was allowed to continue firing after the regulation 20 shots. He hung up 69 straight. However, his teammate, Harry L. Wilson, ran a pos-

sible with 19 V's, which took first place and the Keotah trophy. Johnson was second, and Cecil Berger, of Drumright, with a possible plus 13 V's, copped third. R. C. Burrus, of Oklahoma City, had 100 plus 12 V's.

Eric Johnson and Harry L. Wilson hung up a new state record in the Two-Man Team Match with 398 x 400. Both used metallic sights. Simpson and Smith, of Tulsa, had 395 and ranked Cheuvront and Capt. Wilson, of Ardmore, who also had 395.

Cheuvront's 193 in the Small-Bore Wimbledon was matched by C. W. Simpson, of Tulsa, but Creedmoor decided in favor of the former. Jack Louthan, University of Oklahoma, scored 192 for third place.

Scarcity of pistol and revolver matches caused much annoyance, and the boys who favor the handgun are seeing to it that they get more of a run for their money next year. Edgar Sitler, of Beggs, won the Police Pistol Match, 20 yards on Standard American target, with a score of 86. Henry Jennings had an 85, and Bob Mayrath, University of Oklahoma, an 84, for second and third medals. Ivan Miller, University of Oklahoma, scored 92 for high in the 50-Yard Target Pistol Match, Charles Askins, Jr., second, 90; J. C. Berger, third, 89. The University of Oklahoma team copped the Target Pistol and Police Pistol events, the former with 430 and the latter with 398.

Louthan won the Bobbing Target Match. The 8, 9 and 10 rings from a 20-yard S. A. target were used as a "heart" for scoring purposes to eliminate ties. Louthan had 15 hits on the silhouette target and scored 61 points in the improvised "heart." Mike Engel was next with 15 hits plus 43 points, and J. B. Brooks, third, with 15 plus 28.

Mary Engel, of Luther, was best among the women pistol shooters, scoring 80 on the 20-yard target to win the championship. Other scores were: Mrs. H. E. Keotah, 77; Mrs. C. C. Crabb, 68; Mrs. F. E. Smith, 67; Mrs. W. B. Wilson, 57; Mrs. Helen Croom, 45. Mrs. Smith's 196 won the Women's Rifle Championship. Other scores: Mrs. Helen Sitler, 193; Mrs. Crabb, 189; Mrs. Croom, 184.

Title of All-Around Champion went to Jesse C. Berger, who scored 606 x 650 with rifle and pistol. Harry L. Wilson was second with 603, and F. E. Smith was third with 602. Rifle Aggregate was won by Capt. W. B. Wilson. Second and third places went to Harry E. Brill and Eric

100 PER CENT N.R.A. CLUB

NEW CLUB ADDED TO HONOR ROLL
THE PAST MONTH

(All club members are individual members of the N. R. A.)

LASSEN RIFLE AND PISTOL CLUB,
Elmer R. Winchell, *Secretary-Treasurer*,
610 Maple Street,
Susanville, Calif.

Johnson, respectively. Capt. Wilson, with 276, was high over the Camp Perry Try-out Course and won the N. R. A. plaque. Eric Johnson was second with 271 and Harry E. Brill, third with 270.

Ivan Miller won the Pistol Aggregate with 190; Charles Askins, Jr., second, 188; Bob Mayrath, third, 184.—HARRY L. WILSON.

EMPIRE STATE ASSOCIATION

ONE Sunday afternoon in the autumn of 1931, Capt. Claude H. Spicer, of Auburn, commandant of Company I, 108th Inf., called all riflemen of New York State to meet in the Armory at Auburn, where there are 6 very much alive clubs. Fifteen clubs sent representatives. The meeting became the beginning of the Empire State Rifle and Pistol Association.

Captain Spicer, with years of executive experience, proved an able organizer. Officers were elected and discussion on a schedule was underway in less than an hour. The officers elected were F. M. Avery, Auburn, president; R. J. Hall, Binghamton, vice-president; S. W. Fisher, Ilion, secretary-treasurer; F. C. Remele, Syracuse, statistical officer; G. A. Hausner, Ithaca, executive officer.

The schedule was perfected under the supervision of Mr. Fisher with the assistance of all club secretaries. It provided that each club shoot against some other club at least once a week by mail or shoulder-to-shoulder, 10 shots prone and 10 offhand per man.

The matches are now ended but at present the final scoring has not been completed. However, enough information is at hand to indicate that the Ithaca Rifle Club took first place, with Elmira and Binghamton tied for second.

The features, however, were to be the indoor and outdoor matches. Ithaca welcomed the Association to hold the indoor meet at the Cornell University Armory, which is equipped with 6 targets and the new Type "C" Caswell target carriers. The meet was held April 30. Capt. Charles Ennis, of the R. O. T. C. units at Cornell, rendered all assistance possible to make the shoot a success. Nearly all the cities

and towns having clubs in the Association sent representatives. Executive Officer Hausner enlisted the members of the Ithaca club as committeemen in charge of the various events and Statistical Officer Remele did an excellent job of scoring.

Ithaca took somewhat of the lion's share of the honors, not because their team was using its own range as the volume of work connected with the shoot more than offset this theory, but rather because they were a little better than the others. They won the team match with 929 x 1,000, George Hausner scoring 189; Harold Follett, 186; Clifton Hollister, 186; John Peters, 187, and Joseph Patterson, 181. Canandaigua was second with 901, Elmira third with 897, and Binghamton fourth with 892.

In the kickers' handicap, the first three men scored possibles but on counting the

direct number of bullseyes, Hollister of Ithaca won by a wide margin.

Stuart Edmonds, of Elmira, scored 195 x 200 in the main events, recording a possible prone and 95 offhand. The summary, other than the main event, follows:

Rifle Match, standing, any sights, possible 50: R. Lobdell, Binghamton, 48; S. Edmonds, Elmira, 47; M. Wahlgren, Canandaigua, 46.

Pistol Match, .22 caliber, possible 100: S. Edmonds, Elmira, 77; D. Derby, Auburn, 71; G. Hausner, Ithaca, 70.

Kickers' Handicap, iron sights, standing, possible 100: C. Hollister, Ithaca, 100; H. Cornish, Canandaigua, 100; L. Winter, Canandaigua, 100.

Special Match, standing, any sights, possible 100: Wahlgren, Canandaigua, 91; Cornish, Canandaigua, 89; Lawyer, Binghamton, 88.

The Association, now composed of 21 clubs, invites to membership any club interested in improving rifle shooting in its particular town. S. W. Fisher, 21 Gordon Place, Ilion, N. Y., will answer all inquiries.

Guns vs. Bandits

Burglar, Captor Get Equal Fines Upon Arraignment

THE next time that James D. Chalmers, 27 years old, 215 West Utica Street, encounters an intruder in his home in the early morning hours he probably will invite him to sit down and have a cup of coffee and lecture him on the futility of crime in an effort to have him go about his business.

Early yesterday Chalmers was confronted with the problem of how to get rid of an unwelcome guest who had forced his way into his home through a rear window. He decided to be as rough as his guest, according to police, and poked a revolver against the man's ribs and held him at bay while he called the police.

It was not long before Lieut. William E.

Downey and Patrolman William J. Schneider arrived and took charge of things. They lost no time in arresting the visitor, Francis J. Boyle, 24 years old, 699 Elmwood Ave., on a charge of unlawful intrusion. Then they began talking things over with Chalmers and learned that he had no license for his weapon. So guest and host were taken to the Cold Spring station together.

Boyle, when arraigned in city court yesterday before Judge Clifford J. Chipman, pleaded guilty to being an unwelcome guest and was fined \$25. And Chalmers, the hero, was informed by Judge Chipman that his exhibition of bravery would cost him \$25 also. He pleaded guilty to illegally possessing firearms.—*Buffalo Courier-Express.*

Mayor George A. Hahn, of the village of South Chicago Heights, Ill., made effective use of his pistol when a bandit car drew alongside his automobile on a deserted stretch of road near Chicago on June 23. His shots killed one of the three bandits and the other two fled.

Disregarding personal danger when commanded to stop, the mayor stepped on the accelerator. The bandits fired on him but he returned the fire. Neither he nor Mrs. Court Kraemer, a neighbor, who was riding with him, was injured, while Mayor Hahn had the experience of seeing one of his bullets bring to an end the life of one of the thugs.

"What we need is not so much drastic laws to prevent the sale of weapons as quick and punitive sentences for criminals who carry them."—From editorial in *Philadelphia Public Ledger.*

Robbers, in the fourth time in eight days to hold up the barbecue stand of C. D. Allen and his son, Carl, in Memphis, Tenn., on June 26, were driven off when the younger Allen seized a revolver. The place has been held up 15 times in 7 years.

Three young gunmen who attempted to hold up the drug store of Louis F. Porter, Medford, Mass., fled when Porter snatched his own gun from a shelf and threatened to fire. The bandits made their getaway in an automobile.

A gun frightened off two men and a woman who attempted to break into the garage of Mrs. Ben

Kohner in Waverly, Ohio, on June 12. Edgar Pyle was the one whose use of the pistol drove the would-be robbers away.

A man, alleged to have been attempting to enter the home of Jack Larkin in Pekin, Ill., on June 6, was shot and killed by Larkin.

In an attempt to rob the store of A. Glenn Overbey, in Franklin, Tenn., on June 18, one of four men was seriously wounded by the store proprietor, who is a veteran of the World War and commander of the Franklin Post, American Legion.

An attempt to rob the Quality Meat Market in Hoopestown, Ill., on June 1, was abandoned by four burglars when a load of shot came in their direction. The shot was fired by a bakery employee.

Dr. Herman T. Reinecke, of New York, secretary of the Board of Missions of the Presbyterian Church, used a pistol in an endeavor to halt bandits who had broken into his father-in-law's drug store in Chicago on June 6 but the robbers made good their escape.

In a gun battle staged in the darkness of a Long Beach (Calif.) grocery store on June 23, a burglar suspect was shot and wounded by Officer J. W. Johnson and his accomplice was captured.

One of three men, while driving away after paying a robbery visit to the Aux Sable (Ill.) cabin of Mr. and Mrs. Frank Simon, of Joliet, was killed

instantly on June 30 by a shotgun charge fired by Thomas Wells, who had been awakened by the stir. Two of the men escaped in the darkness. The slain robber was later identified as the driver of the machine in which five bandits rode when they robbed the Spring Valley City Bank several months previously.

Awakening early in the morning of April 17, Rudolph F. Grosskopf, of Indianapolis, found a colored robber in his room. He reached for his pistol and fired. The intruder fell dead. Grosskopf's wife and young son were in the same room at the time.

An armed, masked bandit was shot and killed by Mrs. Myrtle Gairnese, of San Francisco, as he fled from her home after robbing her of \$30 shortly after midnight June 29. It was the second time the same bandit had robbed Mrs. Gairnese within a week.

The crack of a pistol was enough to assure a Mexican, one of three robbers who attempted to enter the grocery store of Leon Joseph, in Kansas City, Mo., on May 22, that he had been shot. His two accomplices fled but the Mexican lay on the floor and groaned. An examination revealed he only imagined one of the bullets fired by Joseph had struck him. However, the attempted robbery was a failure, due to the grocer's prompt action with his pistol.

AN INVITATION AND CHALLENGE FROM TEXAS

PISTOL shooters in Texas plan a Labor Day Pistol Shoot and extend to every state in the United States, and any others interested, to participate. The idea is to select an All-States Pistol Team of 5 men, and to shoot for high honors in the United States and in your own state, both for team and individual honors.

When fired: Sunday or Monday, September 4 or 5. Open to: Anyone, anywhere.

Course of fire: 60 shots for record, twice over the 50-yard National Match Course; slow fire, one minute per shot; timed fire, 20 seconds per string of 5; rapid fire, 10 seconds per string of 5.

Arm: Any pistol or revolver of .32 or larger caliber, not over 7½-inch barrel.

Targets: Standard American, or Official Police.

Entrance fee: 10 cents, to defray postage and issuing bulletin to all competitors.

Prizes: None.

Fired: On your own club or individual range.

Rules: At least 2 witnesses present. When a shooter once commences his score it must be finished as soon as practicable. Abnormally high scores should be signed by 2 witnesses. Scores to be mailed in letter to the undersigned as soon as possible after match. (Don't send targets, but list each shot fired for purpose of properly Creedmooring ties.)

Bulletin showing standing will be issued as soon as possible following match. Prompt mailing of scores will expedite this. Entries need not be made in advance; just shoot and send in your scores. Correspondence from shooters over the country is invited. We are anxious to have you as our shooting guest on either of the dates mentioned. If for any reason you can't shoot September 4 or 5, shoot during the preceding week.

We want to see how many pistol shooters there are in the United States. If we get less than 500 scores we shall be disappointed, so let's all pitch in and shoot for the All-States Team and National and State Individual honors.—L. L. CLINE, N. R. A. State Secretary for Texas, 325 Cedar St., San Antonio, Tex.



KRAG REMODELED BY AN AMATEUR GUNSMITH, A MEMBER OF THE OTTUMWA RIFLE CLUB

A MEMBER of the Ottumwa (Iowa) Rifle Club has turned out a fine piece of workmanship in the remodeling of a Krag rifle, demonstrating what can be accomplishing in this line by a pure amateur. The specifications, as described by Ray D. Utecht, secretary of the Ottumwa club, are listed as follows:

Pitch down, $3\frac{1}{2}$ inches; drop at comb, $1\frac{3}{4}$ inches; drop at heel, $2\frac{1}{4}$ inches; cast off, $\frac{1}{2}$ inch at heel; stock at thickest point, $1\frac{3}{4}$ inches at butt-plate; length of butt-plate from toe to heel, 6 inches; length of stock from middle of butt-plate to trigger, 13 inches.

A piece about $\frac{1}{2}$ inch thick was cut from the top of the stock, beginning just ahead of the comb. Then a piece of matched walnut wood was doped on this place. There was a 2-inch piece added to the bottom of the stock in a like manner. The stock was then worked down to the specifications as outlined in the preceding paragraph.

The balance of the gun after remodeling is such that it will set on the butt-plate in upright position. The pistol grip adds greatly in handling the gun and the high comb fits right against the cheek, affording the best-feeling gun members of the club have ever examined.

Official Results—N. R. A. Outdoor Matches

NOTE.—Following are results of the second series of N. R. A. Individual Outdoor Rifle and Pistol Matches fired during May. Due to increased entries and limited space in the Magazine, names and score of only the high ten at the most in the various events are given.

Bulletin No. 1

WOMEN'S INDIVIDUAL CHAMPIONSHIP

(10 Entries)

Conditions: 20 shots for record at 50 yards; 20 shots for record at 100 yards. Metallic sights. To the winner, a silver medal; second to fifth, bronze medals.

1. Mrs. Edna Secord, Seattle, Wash.	393
2. Mrs. Edna Pauch, Somerville, N. J.	392
3. Mary J. Herig, Belleville, Mich.	388
4. Mrs. Anna Poe, Wichita, Kans.	388
5. Veta Marie Collins, St. Paul, Minn.	387
6. Mrs. P. F. Kittredge, North Adams, Mass.	386
7. Margaret Smith, Detroit, Mich.	385
8. Mrs. J. T. Stone, Wichita, Kans.	382
9. Dr. Pearl Schulz, Cleveland, Ohio	381
10. Mrs. Alice Windnagle, Penn Yan, N. Y.	379

Bulletin No. 2

TYRO 50-YARD MATCH

(186 Entries)

Conditions: 40 shots for record. Metallic sights. To the winner, a sterling silver medal; second to tenth, bronze medals. Percentage medals.

1. Bert Schilling, Newport, Minn.	400
2. R. N. Jones, Madera, Calif.	400
3. Frank Peck, Fort Worth, Tex.	399
4. H. M. Boardman, Virginia, Minn.	399
5. Louis White, New York City, N. Y.	399
6. Alan B. Salkeld, Indiana, Pa.	398
7. James Edmunds, Alberta, Can.	396
8. George Carnright, Cristobal, C. Z.	396
9. E. B. Mechling, Scarsdale, N. Y.	395
10. Arthur Carlson, Marquette, Mich.	395

Bulletin No. 3

TYRO 100-YARD MATCH

(121 Entries)

Conditions: 40 shots for record. Metallic sights. To the winner, a silver medal; second to tenth, bronze medals. Percentage medals.

1. Albert L. Dunagan, Whitefish, Mont.	399
2. R. M. Edmunds, Elmira, N. Y.	397
3. James Edmunds, Alberta, Can.	396
4. F. A. Oliver, Lisbon, N. Dak.	393
5. Frank Peck, Fort Worth, Tex.	393
6. O. S. Wodrich, Jacksonville, Fla.	393
7. D. Fenton Windnagle, Penn Yan, N. Y.	393

8. William Wheeler, Baltimore, Md.	392
9. F. F. Sutherland, Cumberland, Md.	392
10. Arthur Carlson, Marquette, Mich.	391

Bulletin No. 4

50-YARD OFFHAND MATCH

(45 Entries)

Conditions: 40 shots for record, standing. To the winner, a silver medal; second to tenth, bronze medals.

1. Edward J. Muhl, Toronto, Iowa	390
2. S. C. Edmunds, Elmira, N. Y.	383
3. Edward Dehnert, Lu Verne, Iowa	382
4. W. R. Amos, Rocky River, Ohio	378
5. William Schweitzer, Hillside, N. J.	378
6. Mike Altman, Lu Verne, Iowa	374
7. Alfred K. Friedrich, Ames, Iowa	370
8. R. M. Edmunds, Elmira, N. Y.	370
9. Lyell W. Miller, Lu Verne, Iowa	369
10. Harold P. Sorensen, Lu Verne, Iowa	368

Bulletin No. 5

N. R. A. INDIVIDUAL SMALL-BORE CHAMPIONSHIP (AGGREGATE)

Conditions: Scores made in the Individual 50-Yard and 100-Yard Championship Matches constitute the total score for this event. To the winner, a gold medal; a sterling silver medal to the runner-up; eight bronze medals to the remaining highest eight competitors.

	50-yd Champ.	100-yd Champ.	Total Score
1. Leo Kaufman, Munich, N. Dak.	400	400	800
2. McLeod Greathouse, Fort Worth, Tex.	399	399	798
3. Thurman Randle, Dallas, Tex.	399	399	798
4. R. H. McGarity, Washington, D. C.	399	399	798
5. Lt. Morton Solomon, White Plains, N. Y.	398	399	797
6. G. A. Hughes, Youngstown, Ohio	399	398	797
7. E. V. Menefee, Rising Sun, Ind.	399	398	797
8. H. S. Jennings, Wewoken, Okla.	400	397	797
9. H. C. Nielson, Neenah, Wis.	398	398	796
10. R. C. Pope, Dallas, Tex.	398	398	796

Bulletin No. 6

50-YARD SMALL-BORE SPRING CHAMPIONSHIP MATCH

(213 Entries)

Conditions: 40 shots for record. To the winner, a gold medal. To the high competitor using iron sights, provided he is not the winner, a sterling silver medal. Nine bronze medals to the remaining highest nine competitors. Percentage medals.

1. W. R. Amos, Rocky River, Ohio	400
2. Leo Kaufman, Munich, N. Dak.	400
3. Ralph Cory, Newton, Iowa	400
4. Lewis N. Mac Leod, Roslyn, N. Y.	400
5. S. J. Vitano, Brooklyn, N. Y.	400
6. Emmet Swanson, Minneapolis, Minn.	400
7. Henry S. Jennings, Wewoka, Okla.	400
8. Lee Murtaugh, Roslyn, N. Y.	400
9. Fred Johansen, Joliet, Ill.	400
10. Edward Menefee, Rising Sun, Ind.	399

Bulletin No. 7

100-YARD SMALL-BORE SPRING CHAMPIONSHIP MATCH

(195 Entries)

Conditions: 40 shots for record. To the winner, a gold medal. To the high competitor using iron sights, provided he is not the winner, a silver medal. Nine bronze medals to the remaining highest nine competitors. Percentage medals.

1. Leo Kaufman, Munich, N. Dak.	400
2. Thomas Crookes, Wallingford, Conn.	400
3. Jack Stringfellow, Fort Worth, Tex.	400
4. Ralph H. McGarity, Washington, D. C.	399
5. McLeod Greathouse, Fort Worth, Tex.	399
6. Morton Solomon, White Plains, N. Y.	399
7. Thurman Randle, Dallas, Tex.	399
8. R. C. Pope, Dallas, Tex.	398
9. Edw. Menefee, Rising Sun, Ind.	398
10. Joseph B. Nial, Jr., Troy, N. Y.	398

Bulletin No. 8

SMALL-BORE FREE-RIFLE SPRING CHAMPIONSHIP MATCH

(31 Entries)

Conditions: 20 shots, standing; 20 shots, kneeling; 20 shots, prone. No time limit. Each stage to be fired in strings of 10 shots. To the winner of the match, the aggregate of the three stages, a gold medal; a sterling silver medal to the runner-up; to the eight next high competitors, bronze medals. Percentage medals.

1. Paul J. St. Jean, Thompsonville, Conn.	524
2. Morton Solomon, White Plains, N. Y.	517
3. John B. Adams, Stanford Univ., Calif.	516
4. Emmet Swanson, Minneapolis, Minn.	512
5. William Schweitzer, Hillside, N. J.	507
6. Merle L. Israelson, Corry, Pa.	507
7. W. P. Smith, Miami, Fla.	494
8. John M. Toker, Jr., Rialto, Calif.	490
9. Raymond Brown, Westbury, N. Y.	487
10. Alfred K. Friedrich, Ames, Iowa	485

Bulletin No. 9

INDIVIDUAL JUNIOR CHAMPIONSHIP

(418 Entries)

(See N. R. A. Junior Rifle News section for results of this match.)

Bulletin No. 10

200-YARD PRONE MATCH

(73 Entries)

Conditions: 20 shots for record, slow fire, prone. To the winner, a gold medal; second a sterling silver medal; to the high competitor using iron sights, provided he is not the winner or runner-up, a silver medal; bronze medals to the remaining eight highest competitors.

1. Charles G. Hamby, Atlanta, Ga.	195
2. E. D. Shumaker, Scio, Ohio	194
3. C. R. Riple, Dennison, Ohio	193
4. Ralph F. Izard, Chicago, Ill.	193
5. Michael J. Blackwell, Cleveland, Ohio	192
6. Edward Menefee, Rising Sun, Ind.	192
7. R. E. Rainsberger, Uhrichsville, Ohio	191
8. John Crenshaw, Greenville, Ala.	191
9. Charles Johnson, Upper Darby, Pa.	191
10. Edson W. Hall, Hollister, Mo.	191

Bulletin No. 11

200-YARD STANDING MATCH

(34 Entries)

Conditions: 20 shots, slow-fire standing. To the winner, a gold medal; second, a sterling silver medal; to the highest competitor using iron sights, provided he is not the winner or runner-up, a silver medal; bronze medals to the remaining eight highest competitors.

1. O. Willie Olson, Silverton, Oreg.....	98
2. H. E. Keotah, Oklahoma City, Okla.....	97
3. Sam Bond, New Philadelphia, Ohio.....	96
4. Oswald D. Lewis, E. Windsor Hill, Conn.....	95
5. Franklin D. B. Smith, E. Chatham, N. Y.....	95
6. Henry S. Jennings, Wewoka, Okla.....	93
7. John O. Oiden, Minneapolis, Minn.....	93
8. Alvin Bodenschatz, San Jose, Calif.....	93
9. Franklin D. West, Des Moines, Iowa.....	92
10. Harry J. Black, Des Moines, Iowa.....	92

Bulletins 12, 13, 14 and 15 will be published next month.

NOTE.—All ties have been broken in accordance with N. R. A. rules.

MIDDLESEX RIFLE CLUB

EARLY in 1931, the Middlesex (Mass.) Rifle Club acquired a new 200-yard range at West Concord. There are two log structures on the property—one small, windowless cabin for the storage of targets, ammunition, telephones, tools, etc., and the other a shelter with one open side, with a large fireplace, stone floor and rustic furniture for the members. There is a fine spring nearby. Four double-sashed target frames were installed at the butts, brush and trees were cut and the firing point leveled and grassed down. The range was duly inspected and approved by the Massachusetts ordnance officer.

Three open shoots were held during the year on holidays as follows: April 20 (Patriots' Day), May 30 and July 4. At these shoots prizes to the value of \$100 were given outright and, in addition, cups for annual competition were awarded to winners of various events. A club championship shoot for members only was conducted on Saturday afternoons from May 16 to August 1. Cash prizes, medals and a cup were awarded the winner and runners-up in this event.

The club entered two 6-man teams in the Eastern Massachusetts Rifle League series with fifteen teams competing. Middlesex Team No. 1 finished in a tie for first place with Massachusetts Rifle Association Team No. 1. The latter team won the shootoff, which was held December 26, 1931. Two first places were won by Middlesex Club teams and several individual members took first prizes at the New England Rangers shoot held at Lowell on September 26 and 27. Four members competed and qualified for places on the Massachusetts Civilian Rifle Team, which finished in Class B in the National Rifle Team Match, 1931.

The club now has a fine range, interest in all events runs high and a successful year is anticipated in 1932.

WOMAN OUTSHOTS MEN WITH .45

COMPETING against the best shots of mail branches of the service in the Panama Canal Zone and civilian marksmen as well, Mrs. J. Thompson, a member of the Balboa Gun Club and of the N. R. A., took first place in the .45-caliber pistol match in the last departmental small-arms matches at Fort Clayton. She has been shooting only the past two years.

COMING EVENTS

The United Services of New England will hold their annual tournament at Wakefield, Mass., August 7 to 14, inclusive, and in connection with it will be held the N. R. A. First Corps Area "Little Camp Perry." The matches will include the Coast Guard Trophy and the Crowell Trophy Matches, these trophies having been assigned the meet by the N. R. A. The program also includes other N. R. A. Matches for medals: Camp Perry Instructors' Match, Members' Match, Individual Civilian Club Members' Match and the President's Match, besides the usual attractive list of annual United Services events. Address communications to United Services of New England, J. H. Pembroke, secretary, Room 200, State House, Boston, or, during the tournament, to Mr. Pembroke at Camp Curtis Guild, Wakefield, Mass.

Third Corps Area "Little Camp Perry," Quantico, Va., August 24 to 27, inclusive. Trophies assigned are the Marine Corps Trophy, President's Match trophies, except Cavalrymen's, and Herrick Trophy. Contact Maj. S. M. Harrington, Marine Corps Headquarters, Washington, D. C.

Fifth Corps Area "Little Camp Perry," Camp Perry, Ohio, August 30 to September 5. Trophies will include Small-Bore Wimbledon, Short-Range Two-Man Team, Dewar and Railwaymen's International. The Preliminary Dewar and Camp Perry Individual Matches will also be fired. Contact Maj. Clyde L. Miller, 197 Tylane Road, Columbus, Ohio.

Sixth Corps Area "Little Camp Perry," Fort Sheridan, Ill., August 29 to September 5. Trophies assigned are the Wimbledon Cup, A. E. F. Roumania Cup, Individual Long Range Cup, Long Range Two-Man Team Trophy. Other N. R. A. annual match courses will also be fired. Contact A. R. Epstein, 1101 Conway Bldg., Chicago, Ill.

Eighth Corps Area "Little Camp Perry," to be held in conjunction with the Far Southwest Rifle, Pistol and Shotgun Matches at Fort Bliss, El Paso, Tex., September 26 to October 1. Besides a lengthy and attractive list of events, the Navy Cup, Cavalrymen's Cup in the President's Match, the Small-Bore Individual Short Range Trophy and the Clark Memorial Pistol Trophy will be contended for, having been assigned to the meet by the N. R. A. Contact Dick Cunningham, Chamber of Commerce Bldg., El Paso, Tex.

The New Jersey National Guard will hold the Interdivisional and East Coast Pistol Matches at Sea Girt on August 13 and the 44th Division Pistol Matches, including Company Team Match, Regimental Team Match and the N. J. National Guard Individual Championship, on August 27, also at Sea Girt. All Service teams eligible are invited to enter. For complete details, address Lieut. Col. Charles W. Stark, N. J. National Guard, 27 Washington St. Newark, N. J.

The National Capital Rifle Club, Washington, D. C., has listed Army Rifle Qualification Course D, 200 yards, Army A target, for the third Sunday in August.

The First Annual Northern Minnesota Small-Bore Shoot will be held August 20 and 21 on the range of the Virginia Rifle Club. The program includes Individual Dewar Match, 50-Yard Military Position Offhand Match, Dewar Team Match, 50-Yard Free Rifle Offhand Match, Individual 50-Yard Prone Match, Individual 100-Yard Prone Match and North and South Match over Dewar Course, 10-man teams. Address Alex Ellison, secretary, Virginia Rifle Club, 121 Seventh St. South, Virginia, Minn.

The Wisconsin Rifle Association will hold its state-wide matches August 7, beginning at 8 a. m. Squadding will cease at 8:45 a. m. The matches will be conducted on the Racine County line range, on highway 42, 15 miles south of Milwaukee. The high-power rifle matches include offhand and sitting rapid fire at 200 yards; sitting, prone slow fire, and

prone rapid fire at 300 yards, and the aggregate. High-power pistol matches will be held on the 25-yard range, timed, rapid and slow. The small-bore rifle matches will be held over the Dewar course. The small-bore pistol matches will be held on the 25-yard range, timed, rapid and slow. For bulletin of the matches, address Fred Ruffolo, Racine, Wis.

The August small-bore program of the Illinois State Rifle Association includes: practice at 50 and 100 yards on the 7th; 5-team match (No. 7) over the Dewar course on the 14th; Legion State Matches on the 21st, and a special match sponsored by the Westric Club on the 28th. The last, an open invitational event, will probably be fired under Dewar conditions.

The Second Annual Hudson Valley Small-Bore Championship Shoot will be held at the Poughkeepsie R. C. range at Vail's Farm, on August 13 and 14. The program includes the Championship Match, fired 20 shots at 50, 100 and 200 yards; 50-yard, 100-yard and 200-yard matches and reentries, any sights, and an iron-sight match at 50 and 100 yards. H. A. Decker is secretary of the Poughkeepsie club.

The Swiss Rifle Association, Inc., of Hudson County, N. J., will hold a 50-shot match at Ladentown, N. Y., on August 28. For information, address William Hofmann, secretary, 222 South St., Jersey City, N. J.

The Minnesota Rifle Association will conduct its Miniature Camp Perry Meet at Fort Snelling on September 3, 4 and 5. While the meet is not one of the Regional "Little Camp Perrys" of the N. R. A., it is a shoot that will provide a most attractive program of events and draw large entry lists. For details address C. M. Saam, Secretary, Rifle and Revolver Association, 16th Floor, Telephone Building, Minneapolis, Minn.

The Convention Shoot (high power) of the California American Legion will be held at the Leona Heights range, Oakland, Calif., August 16 and possibly 17. Members of recognized rifle and pistol clubs, whether members of the Legion or not, may participate. A special Krag event for Legionnaires is scheduled. Address Roy Mingins, Dept. Marksmanship Director, 500 Sansome St., San Francisco.

RECENT EVENTS

The Plymouth (Mass.) Gun Club defeated the Henniker Gun Club on the Plymouth range in a recent match, 1,239 to 1,176. With 215 x 225, C. Fitch, of the winning team, was high individual. The match was fired at 50, 100 and 200 yards.

The Everett (Mass.) Post American Legion Rifle Club, in its first match, lost to Winthrop (Mass.) Post, American Legion, 427 to 440. The match was fired June 12 at Fort Heath, 200 yards prone, s. f., 20 shots per man. H. Henderson, of Winthrop, was high individual with 91 x 100. R. Green, of Winthrop, and A. Light, of Everett, each had a 90.

The Norfolk and Western Railway Y. M. C. A., Portsmouth, Ohio, rang up a score of 1,943 x 2,000 (five high men) in its triangular international mail match with the Hamburg (Germany) Police and Norwich (England), shot at 50 yards and 50 meters. The Portsmouth team fired its scores on June 25. R. V. Nutter made a 200 possible at 50 meters and 197 x 200 at 50 yards to top his team mates. E. M. Farris was second with 199 at 50 yards and 195 at 50 meters. (Scores of the two foreign teams had not arrived in time for publication here.)

The Sabraton (W. Va.) Rifle Club defeated the Wetzel Rifle Club, New Martinsville, W. Va., 1,931 to 1,888, in a shoulder-to-shoulder match over the Dewar course at Morgantown on June 19. E. Weltner, of Sabraton, was high individual with 391 x 400.

(Continued on page 56)

AGAIN!!! THE "SEA SWEEP CLEAN WT



Wm. P. Schweitzer, Winner of the Grand Aggregate

Mr. Schweitzer, of the Maplewood, N. J. Rifle Club, proved the individual star of the shoot. He also won the Palma Individual, the Camp Perry Special, the Spencer, and placed second in the 100-yd. Individual. Naturally, he shot Palma Match.

Eastern Individual

1st—Harold J. Wood	Score 294
2nd—H. M. Wolfe	Score 292
3rd—R. H. Betts	Score 292

All shot Palma Match

Palma Individual

1st—Wm. P. Schweitzer	Score 218
2nd—Geo. B. Sheldon	Score 218
3rd—Gene Farren	Score 218

All shot Palma Match

300 Yard Individual

1st—L. J. Corsa	Score 93
2nd—C. H. Johnson	Score 92
3rd—E. J. Miner	Score 90

Mr. Corsa shot Palma Hi-Speed—the others, Palma Match

Camp Perry Special

1st—Wm. P. Schweitzer	Score 396
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Shot Palma Match



56% of all shooters; 92% (11 out of 12) of all those placing 1st, 2nd, 3rd

One hundred and seventy-five shooters from all parts of the country took part in this year's small bore classic at Sea Girt, June 30—July 4. Throughout the five days a brisk strong fish-tail wind made shooting very difficult. As usual it proved almost impossible to win with anything but the most accurate ammunition available—Palma Match or Palma Hi-Speed. They won first place in all but one of the 12 individual matches, including the re-entries, and they were 1—2—3—in ten of them.

Grand Aggregate

1st—Wm. P. Schweitzer	Score 1092
2nd—Gene Farren	Score 1078
3rd—S. A. Colborne	Score 1071

The first seven places in this match were won with

Palma Match

Spencer Match

1st—Wm. P. Schweitzer	Score 186
2nd—J. A. Willners	Score 186
3rd—F. O. Kuhn	Score 185

All shot Palma Match

Long Range Individual

1st—W. B. Woodring	Score 189
2nd—R. A. Swigart	Score 189
3rd—W. Jensen	Score 186

All shot Palma Match

Swiss Match

1st—J. C. Jensen	Score 19
2nd—H. C. Johnson	Score 17-17V
3rd—W. J. Summerall	Score 17-10V

All shot Palma Match

Unlimited Re-Entry Matches

50 YARDS

1st—Thurman Randle	Score 500
2nd—Gene Farren	Score 500
3rd—R. H. McGarity	Score 500

All shot Palma Match. 12 of the 15 possibles scored in this match were made with Palma

100 YARDS

1st—T. Randle	Score 500
2nd—Gene Farren	Score 500
3rd—R. H. McGarity	Score 498

All shot Palma Match

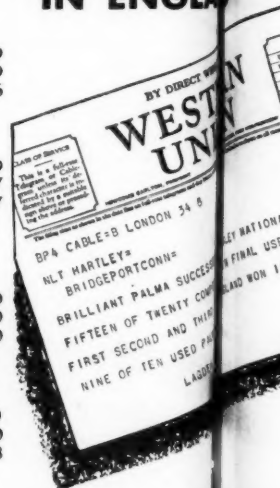
1st—Gene Farren	Score 200
2nd—G. Wilkinson	Score 198
3rd—C. St. John	Score 195

All shot Palma Match

1st—H. A. Decker	Score 300
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Shot Palma Match

AGAIN!! MA
IN ENGLA



Practically All Small Bore Records Have Been Made With Remington Ammunition.

No Ammunition Comes With

WHY HANDICAP YOURSELF? . . . S

SEA GIRT SHOOTERS" WITH REMINGTON

ut of 2) of all winners; 90% (29 out of
nd, 3rd — Shot Remington Ammunition

all parts In the 50-yard unlimited re-entry, 12 of the 15 pos-
l bore sibles scored were made with Palma Match.

out the In the 4-man team matches 3 out of 4 on both
ooting winning teams, including the high man on each
ossible team, shot Palma.

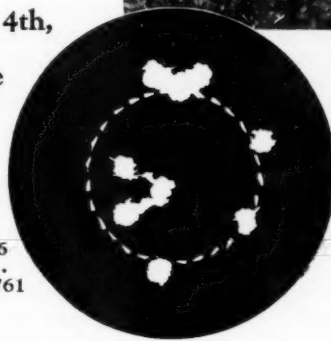
ammu- In the two-man team match the 1st, 2nd, 4th,
Speed and 5th teams shot Palma.

indivi- On the team from Pennsylvania that won the
y were Interstate Match 5 out of 6, including the
four high men, shot Palma.



Harold J. Wood, Elizabeth, N. J.
Winner of Eastern Small
Bore Championship

The outstanding tar-
get on the wind-swept
range was the remark-
able 10X possible
made at 100 yds. with
Palma Match by Mr.
Wood in winning the
Eastern Individual
Match at 50, 100 and
200 yds. with 294 x
300.



Eastern Two-Man Team Match

1st—F. A. Kent, H. J. Wood
Score 766
2nd—R. H. Betts, J. H. Rackie
Score 761
All shot Palma Match

Interstate Team Match

1st—Pennsylvania Score 1115
J. A. Willners, G. H. Sittler, J. H. Rackie, R. C.
Parry, R. H. Betts, C. H. Johnson.
Five out of the six, including the four high men, shot Palma
2nd—Connecticut Score 1099
Wilkinson, F. O. Kuhn, R. H. Nisbet, C. S.
Neary, S. A. Colborne, C. J. Walker.
All shot Palma Match

Eastern Team Match

1st—D. C. National Guard Score 1169
J. C. Jensen, C. S. Shields, T. A. Riley, W. R. Stokes
Three of four, including the high man, shot Palma Match
2nd—National Capitol Score 1169
R. H. McGarity, Donald McGarity, W. Jensen,
J. D. McNabb.
All shot Palma Match
3rd—Frankford Arsenal Score 1167
J. H. Rackie, W. T. Bryan, G. R. Hess, O. Hen-
ningsen.
All shot Palma Match

Palma Team Match

1st—Bear Rock Rifle Club Score 892
R. C. Parry, W. Boone, E. Handwerk, L. E. Bittner
The three high men shot Palma Match
2nd—National Capitol Rifle Club Score 892
R. H. McGarity, D. McGarity, J. D. McNabb, W. Jensen
Three of the four, including the two high men, shot Palma Match
3rd—D. C. National Guard Score 889
J. C. Jensen, C. S. Shields, T. A. Riley, W. R. Stokes
Three of the four shot Palma Match



inition es With Remington For Accuracy.

More Kleanbore .22's Are Sold Than All Other Makes Combined.

SHOOT PALMA MATCH TO WIN

4614



(A Division of the National Rifle Association devoted to teaching every boy and girl in America the safe and accurate handling of the rifle.)

Conducted by H. H. Goebel

And Now the Summer Camps

ONCE more we are brought back to the great outdoors to the summer camps, private and institutional, where thousands of boys and girls are again privileged to compete in their natural outdoor activity—rifle shooting. The many boy and girl educators realize the benefits to be derived from this training and their cooperation and untiring efforts have helped immeasurably in making the N. R. A. Junior program of rifle marksmanship training and competition one of the most popular camp activities. Not only is shooting an enjoyable sport, but it develops in competitors those qualities of sportsmanship, fairplay, manliness and self-control and cooperation, which are so essential to success in life.

More than 350 private and institutional camps are conducting this wholesome activity this year. Leaders and counselors directly in charge of instruction on the range have been provided with complete instruction literature, including manuals and the training course covering all phases of marksmanship. Many of these leaders and counselors have completed this course in advance of the camp season, as qualified and commissioned instructors. Junior competitors, likewise, have received rule books containing rifle-shooting instruction, a complete code of safety rules and also the course in decoration firing in 18 stages for 15 distinct awards.

Many camps, under the assumption that their ranges will be more active than ever, have requisitioned supplies of the various medal and pin decorations, also diplomas on consignment, for immediate presentation to their campers as the necessary requirements for each stage are completed.

Approximately 13,000 decorations in all stages were awarded to campers a year ago. With an augmented list of approxi-

mately 20 new camps taking on this activity for the first time and, in addition, several camps that have been with us in this work in the past but were missed last year, there is every expectancy that the number of qualifications to campers during the present season will exceed 15,000. Qualification returns and reports of firing are made to National Headquarters weekly, thus providing a constant record of achievement and also eliminating the mountain of targets that are generally mailed at the close of the season.

Rifle shooting as a constructive camp activity comes well recommended by camp directors who have installed the N. R. A. Junior program of training in their camps. Here are a few camp directors' expressions of interest and enthusiasm on the program as a whole, the services rendered, also its attractiveness and popularity.

"Rifle shooting is the greatest national feature a camp can put on its program."

"We had a great summer this year, and shooting was one of the main features and went over big with the parents as well as the boys."

"Rifle shooting was so popular that the instructor in camp held classes twice a day during the season of four weeks."

"I thank you for your prompt and hearty cooperation in making our rifle work one of the major attractions at our camp."

"I have been in camp work for a number of years and never have I seen anything capture the fancy of Scouts as the work we are doing on the rifle range."

"There was quite a little opposition to the program before camp, but it proved next to swimming to be the most popular activity."

"The interest in this phase of our camp program is continually increasing both with our campers and leaders. It is also gaining

considerable favor with the parents of the boys and girls who attend camp."

"Never has the sport been so popular here. We have doubled our range capacity and are running four squads daily."

"Rifle shooting this year at camp is one of the most if not the most popular sport."

"We experienced splendid success with our shooting program. Our plans call for greater improvement of our range and equipment another year."

"Am delighted to report our most successful camp season and to add that our rifle interest was unusually good."

"Each season seems to be more successful, but we believe that for this one just past, the enthusiasm and records of our girls have far surpassed our expectations."

New Camps

Chief Ouray, Grandby, Colo.

"Y" Camp, Grand Mesa, Grand Junction, Colo.

Black Hawk, Maquoketa, Iowa.

Wildview, Arkansas City, Kans.

Kingswood, Bridgton, Maine.

Wild-Croft, N. Windham, Maine.

Trinity, W. Barnstead, N. H.

Nyoda, Oak Ridge, N. J.

Claude, Ripley, N. Y.

Hilltop, Kelsey, N. Y.

Read, Mahopac, N. Y.

Hy-Lake, Rock Island, Tenn.

Mountain Run, DuBois, Pa.

Minocqua, Minocqua, Wis.

Tivoli, Cecil, Wis.

Nixon, Little River, S. C.

Susquehanna, New Milford, Pa.

Manitou, New Auburn, Wis.

Black Fox, Calif.

Carson, Loysville, Pa.

Gifford, South Omaha, Nebr.

Appoquinimink, Middletown, Dela.

Haley, West Branch, Mich.

Birch Hill, New Durham, N. H.

Marston, Calif.
 Potawotami, Ind.
 Wigwassin Rangers, Can.
 Toquam, Conn.
 Loyola, Ala.
 Riverside Summer, Calif.

ENLARGED PROGRAM OF SUMMER CAMP MATCHES

ACCOMPLISHMENTS in intercamp shooting contests vary, of course, according to the time devoted to the sport, the equipment and range facilities and to the number participating. However, all affiliated camps are invited, yes, and expected to have at least one team entered in the National Camp Matches. Although conducted in two distinct sections for boys' camps and for girls' camps, the program this year has been enlarged, providing for Junior and senior teams in each section. In other words, four matches are scheduled, a Junior and senior match for affiliated girls' camps and a Junior and senior match for boys' camps. Appropriate trophies and individual medals will be awarded to the four winning teams, and the high team will be declared the National Camp Champion.

The match conditions provide for as many Junior and senior teams representing an affiliated camp as is desired. The Junior teams consist of campers under 16 years and the senior teams consist of members 16, 17 and 18 years of age. Juniors may fire as members of a senior team, but no one camper may fire on more than one team. Seniors may not fire on Junior teams.

Teams will consist of as many as 10 and not less than 5 campers. Competitors will fire in the prone position, 10 shots for record, using the official 5-bullseye targets, furnished by National Headquarters.

The matches may be fired at any time prior to August 15, and returns must reach National Headquarters on or before August 20. This will allow for the scoring of targets and the mailing of bulletins and trophies to the winning camps before the close of the season.

Increased affiliation and an enlarged program providing for Junior and senior matches should mean increased entries, surpassing the record of 150 team entries of a year ago.

Match Conditions—Junior Summer Camp Team Matches

Open to: Rifle teams from boys and girls summer camps affiliated and in good standing with the National Rifle Association.

Teams: Boys and girls teams will compete in separate sections of the

Summer Camp Matches. In each section there will be two matches, one for Junior campers under 16 years and one for senior campers 16, 17 and 18 years of age. Junior campers may fire as members of a senior team, but no camper may fire on more than one team. Senior campers may not fire on Junior teams. Teams will consist of not more than 10 or less than 5 campers. The 5 high scores will count.

Entries: Camps may enter as many Junior and senior teams as desired. Entries may be made at any time after the camp is affiliated. No entry fee.

Targets: Ten official N. R. A. 50-foot 5-bullseye targets will be mailed for each team, with a team entry form for the listing of competitors' names, home addresses and ages.

Course: Ten record shots, 2 shots in each bullseye per man prone. Five high scores to count for team total.

When fired: Targets may be fired at any time during camp season, but must be completed before August 15.

Distance: 50 feet from firing point to target.

Rifles: Any small bore firing any .22-caliber rim-fire ammunition.

Sights: Metallic.

Witness: All firing must be personally witnessed by the camp counselor in charge, the director or some adult appointed by him.

Returns: All 10 targets, fired or unfired, for each team, with the team entry form completely filled in must be returned to National Headquarters on or before August 20. Teams failing to make complete returns will be disqualified.

Prizes: Trophies to the high Junior and senior team in each section of the matches. Medals to the team members. The title "N. R. A. Camp Champion" to the high team.

DANIEL BOONE RIFLE CLUB CLOSES SUCCESSFUL SEASON

AT THE close of a season notable for enthusiasm and good attendance, the Daniel Boone Junior Rifle Club, of Omaha, held its competition match for the club cup and medal awards. The club cup and gold medal were won by David Smith; second place silver medal, by Dick Haugh, and third place bronze medal, by Melvin Osborne.

The trophies were presented at a banquet at the Omaha club, which was arranged under the chairmanship of Melvin

Osborne, with mothers of the winners as honor guests.

During the season 54 medals and 16 bars were awarded for individual competition. Bill Barr, secretary of the club, completed his string of 10 prone targets toward the Distinguished Rifleman bar.

The club was again under the instructorship of Sergt. S. B. Moore, D. E. M. L. The members of the club regret that Sergeant Moore will not be able to take charge next year. It is exceptionally fortunate, however, that they have succeeded in securing as instructor Tom Organ, who gave so good account of himself at Camp Perry. In 1929 he competed as a member of the Seventh Corps Area C. M. T. C. team, and in 1930 and 1931 was with the Nebraska Civilian team which finished first in 1930 and second in 1931. He was high man on this team. Tom won the Nebraska grand champion's cup both for rifle and pistol marksmanship this year.

There is already a waiting list for membership in next season's club, and if an instructor is available a second club may be organized.

The officers of the club are Merrill Rohrbough, president; Dick Haugh, vice-president; Bill Barr, secretary; David Smith, treasurer, and Russell Clark, executive officer, all of whom have shown marked ability in handling the duties assigned them.

EXPERT RIFLEMEN

Raymond Sidenblad, Morris, Minn.
 Bertrem Lee Stolze, Wheeling, W. Va.
 Everett Woodward, Salina, Kans.
 Ruel Creitz, Salina, Kans.
 Garnet Guame, Salina, Kans.
 Zygmunt Jaros, Jackson Heights, N. Y.
 Norma Bradford, Auburn, Maine
 Hartley Lort, Auburn, Maine
 Frank Alexander, Xenia, Ohio
 Lewis Wine, Xenia, Ohio
 Bob Cammon, Parkland, Wash.
 Chet Paulson, Tacoma, Wash.
 Robert L. Hoppe, St. Paul, Minn.
 Robert G. Clasen, Davenport, Iowa
 Jack Rutherglen, Cheyenne, Wyo.
 Rufus McCracken, Knoxville, Tenn.
 William Richards, Knoxville, Tenn.
 Fred Richmond, Knoxville, Tenn.
 Charles Wilkins, Knoxville, Tenn.
 William Marteny, Tucson, Ariz.
 Robert B. Yorke, Jr., Philadelphia, Pa.
 George F. Bateson, Jr., Youngstown, Ohio
 Bob La Rue, Waterloo, Iowa
 B. C. Arnold, Pueblo, Colo.
 Leila Lewter, Pueblo, Colo.
 Pauline Jones, Pueblo, Colo.
 Margaret Crosby, Pueblo, Colo.
 Velma Williams, Pueblo, Colo.
 La Verne Femmer, Pueblo, Colo.
 Mariejean Hurlbut, Pueblo, Colo.
 Victor Bailey, Porterville, Calif.

C. Victor Barberis, Jackson Heights, N. Y.

Herbert C. Wiegand, St. Louis, Mo.

Frank Ehrneford, Brooklyn, N. Y.

Homer D. Lowe, Jr., Point Pleasant, W. Va.

Charles German, Fostoria, Ohio

William Dexter, Birmingham, Ala.

H. M. Sorkin, St. Louis, Mo.

William Hughes, Madera, Calif.

Richard Childs, Madera, Calif.

William Amelung, St. Louis, Mo.

M. Hayashi, Honolulu, Hawaii

Francis Chang, Honolulu, Hawaii

Arthur Lum, Honolulu, Hawaii

John Baker, Waipahu, Hawaii

Robert Kaya, Honolulu, Hawaii

Hartwell Silva, Honolulu, Hawaii

Arnold Kufferath, Honolulu, Hawaii

Howard Dang, Honolulu, Hawaii

Joe Fette, Honolulu, Hawaii

Willis Danielson, Ft. Leavenworth, Kans.

Bob Godfrey, Fort Leavenworth, Kans.

Robert E. Haythorne, Chicago, Ill.

Tom Bradford, Lake Bluff, Ill.

Louis Veilleux, New Bedford, Mass.

George R. Loder, Erie, Pa.

Merrill Kathryn, Eau Claire, Wis.

George Stone, Springfield, Mass.

Victor Newton, Springfield, Mass.

Sebastian Geluso, Ridgewood, Brooklyn, N. Y.

William Moore, Cramerton, N. C.

Wilburn Johnson, Chattanooga, Tenn.

Byrl Pirtle, Green River, Wyo.

George S. Lee, Honolulu, Hawaii

Don Evans, Honolulu, Hawaii

Otto Haas, Haverford, Pa.

Darrough Grohman, San Antonio, Tex.

William Zadik, San Antonio, Tex.

Richard Koltermann, San Antonio, Tex.

Kenneth A. Anderson, Montclair, N. J.

August King, Joliet, Ill.

Russell Dickie, Melrose, Mass.

Jacob Feingold, Malden, Mass.

Edward Fielding, Malden, Mass.

Walter Gleitsmann, Malden, Mass.

Charles Gormley, Malden, Mass.

Benjamin Warrell, Malden, Mass.

Leonard West, Malden, Mass.

Richard Wolfson, Malden, Mass.

Robert Woods, Malden, Mass.

Lawrence Lowry, Malden, Mass.

Franklin Stabner, Xenia, Ohio

Frank R. Cordes, Jr., Bronx, New York City

Elmer P. Renstrom, Jr., Chicago, Ill.

BUTTERWORTH AGAIN WINS INDIVIDUAL JUNIOR CHAMPIONSHIP

JIM BUTTERWORTH, of Highland Park, Ill., repeating his performance of a year ago, again turned in a score of

399 x 400, to take individual honors and the Junior Championship. John Lomas, of Bridgeport, Conn., also scored 399; but Butterworth outranked him for the lead, his first, third and fourth strings prone being possibles and his second string a 99. Lomas, with three possibles in his first, second and fourth string, dropped one point for a 99 in his third string. These competitors have been awarded gold and silver medals respectively, and 8 bronze medals have been awarded the first 8 of the 10 listed who turned in scores totaling 398.

In this match there were 418 entries and 270 submitted returns. The standing of competitors with scores of 375 or better are here listed.

INDIVIDUAL JUNIOR CHAMPIONSHIP

(418 Entries)

Conditions: Four strings of ten shots each, prone. Metallic sights. To the winner, a gold medal; second, a sterling silver medal; third to tenth, bronze medals.

1. Jim Butterworth, Highland Park, Ill.	399
2. John Lomas, Bridgeport, Conn.	399
3. Marshall Over, Ingomar, Mont.	398
4. Orval Wilson, Porterville, Calif.	398
5. Sam Nelson, Bridgeport, Conn.	398
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164. Thomas Towery, Jacksonville, Fla.	375
165. Jim Mundstock, Highland Park, Ill.	375

NOTE.—All ties in this match have been broken in accordance with N. R. A. rules.

SEA GIRL

(Continued from page 23)

match and every man of them learned something about the wind which he never knew before. There was a lot of "master-minding" done, but it was no use. The little 40-grain bullets would not stay put, they just jumped all around up and down and from side to side.

Before the Palma Individual was completed, however, the first and second orders were set up on the 100-yard range for the last match of the day, the 100-Yard Individual. Although there were 83 entries the match was cleaned up by 7 o'clock. When the bulletin was posted Walter Stokes was shown as the winner with a score of 199. Right behind him was that chap, Schweitzer, who was sharpening his sword for the deadly execution of the following days. He only dropped two points in this match. When the gang arrived on the 100-yard firing point Sunday morning at 8 o'clock for the Eastern Two-Man Team Match, the old fish-tail wind was still there blowing just as hard as ever. The winners were Kent and Wood with a score of 766, and Betts and Rackie following with a score of 761.

The Spencer is one of the most popular matches at Sea Girt. It drew 94 entries. The course consists of 20 shots at 200 yards. The wind kept right on blowing and some of our finest small-bore shots dropped by the wayside. The fact remains that W. P. Schweitzer found himself in first place with a score of 186 at the finish—the winner of the Frazee Cup, donated by the Sea Girt shooters in memory of the late Capt. Youle T. Frazee (who had previously given the cup in this match every year since the match has been shot). In second place, however, tied with the winner, was Jack Willners, outranked again, but old Jack was shooting pretty well. He's a bulldog for hanging on. In third place was Fred Kuhn with 185.

With the Spencer out of the way the "Camp Perry Special" without question was the most popular match because it duplicates Dewar conditions. It got started on the 50-yard range and, believe it or not, there were 106 shooters down at one time on that firing line and if you have ever seen 106 small-borers shooting on 20 frames with five or six targets on each frame then you will know what that firing line looked like.

Our old friend, William P. Schweitzer, did not seem to mind the wind because he only dropped one point at 50 yards and three at 100 or a total of 396. That boy certainly is at the top of his form. He just about cleaned up everything. When he was last seen pulling out of Sea Girt Tuesday afternoon, he was at a filling station getting air in his tires on

account of the weight consisting mostly of merchandise such as cups, medals, cash, etc.

The runner-up in this match receives the Fecker scope donated annually and perpetually by Mr. J. W. Fecker, who has been doing this since the Sea Girt Shoot was started. This year he gave one of his famous spotting scopes with a couple of extra eyepieces and a fine leather carrying case. The outfit would probably set anybody back what the shooters at Sea Girt would call "berries" about 100 of them. Anyhow, it would take a lot of "iron men" to buy the outfit. S. J. Vit-rano of Brooklyn, N. Y., got the scope on a 393.

And how those Class C men shot! No less than four of them were among the first 20, and Arthur Elliot was pretty close to the top in fourth place with a score of 392.

Before the Camp Perry was through the first order came up for the 300-Yard Individual Match. This is the second time the match has been shot at Sea Girt. The conditions call for 20 shots on the A target with 10" bullseye. Remember that fish-tail wind was still with us when the match started at 5 o'clock. Here was a real test of small-bore shooting at 300 yards and the wise boys, of course, doped it out that the Hi-Speed ammunition would be a big help under the circumstances and so it worked out because the boys who followed the dope spotted Corsa shooting Hi-Speed and with only 7 down at the finish of his score and sure enough when the unofficial bulletin came out he was at the top with a 93; but right behind him was our old friend, Charlie Johnson, with a 92 and in third place a "B" man, E. J. Miner of Babylon, N. Y., with a 90.

At this point this writer takes the opportunity to make a correction in last year's story of the 300-yard match at Sea Girt. We made the claim there that it was the first time a 300-yard match had been held in this country. The ink was hardly dry on THE AMERICAN RIFLEMAN when we began to hear about previous matches at long range. Larry Corsa told us about the match held at Peekskill several years ago where they staged a 300-yard match under the same conditions as at Sea Girt and where the wind blew so hard that they had to tie the targets down. Recollection is that it was Larry himself who won the match. Shortly after Larry told us about the match at Peekskill, we met "Kap" Richard and Kap told us about a 500-yard match that was held in Ohio so many years ago that even Kap couldn't remember. He was a young fellow at the time so we know it was a long time ago and it just goes to prove that there is nothing new under the sun.

However, the second 300-yard match at Sea Girt was a big success from the standpoint of wind resistance. There were 62 shooters in this match and some of the best fell by the wayside. It had been a great day and again it was nearly 7 o'clock before the firing was finished.

The morning of the Fourth dawned with a promise of rain in the clouds. But the wind had switched and was coming from the southwest and when the wind comes from that quarter at Sea Girt, it *doesn't* mean rain, and everybody was glad because it was the last day; it was the Fourth of July, the shooting would be over a little after noon and everybody was anxious to get started for home to avoid the rush.

Promptly at 8 o'clock four teams representing the states of Pennsylvania, Connecticut, New York and New Jersey, lay down on the 200-yard firing point. Charlie Johnson was the cause of considerable enthusiasm when, as the anchor of the team and with Connecticut threatening to make off with the match, he finished stronger than any other shooter with a fine 194 out of the possible 200. Charlie certainly did himself proud, and with the 190 turned in by Willners, they rode home the winners on a total of 1,115—16 points to the good over the Connecticut team.

Then the Swiss Match got under way and as usual provoked considerable merriment as the competitors carefully laid out their equipment, firing two sighting shots and a first shot for record only to find that they were out of the bullseye and as usual the first and last shot for record was a "four." There were 74 entries in this match. Capt. J. C. Jensen was the only one to last out for 19 consecutive bullseyes but he had lots of competition as Charlie Johnson ran out 17 for second place, and W. J. Summerall also 17 but was outranked for V's. Captain Jensen got the annual prize donated by Robert Nisbet of South Kent, Conn., a beautiful etching done by himself, because he it known Bob is an artist and we know because behind his name he signs the letters "N. A.," and moreover, we have seen some of his beautiful work. Bob is a good shot, a good artist and a good sportsman.

After the Swiss Match a recess was taken for lunch. The Long-Range Individual open to "B" and "C" men only was the last and concluding match of the program. Here's where the "B" and "C" usually have an opportunity to do their stuff and it was a "C" man who finally came out at the top—W. B. Woodring, of Bethlehem, Pa., who scored 189. R. A. Swigart, of Bowling Green, Ohio, tied the winner but was outranked, and in third place was that youngster again, the son of Capt. J. C. Jensen, with a 186.



Use of Chemicals by Law-Enforcement Officers in Civil Disorders

VI—Illustrative Problems in the Use of Chemicals

Part II

By CAPTAIN C. M. KELLOGG, C. W. S. (D. O. L.)
and MAJOR A. F. SPRING, C. W. Reserves

A SHOTGUN was pushed out! A spurt of flame—the sheriff fell dead! A deputy was next! Blazing guns of cold-blooded desperadoes bellowed a savage hymn of hate. The law, battling unto death, could not stand against the murderous fire. One by one those courageous men slumped to earth, DEAD! Eight officers shot down like dogs! Six of them lying dead in the yard about this somber Missouri farmhouse!

The brutal Young brothers massacre, that shocked the nation and bowed every head in the Ozarks region with grief and humiliation, had been written into the annals of law-enforcement history as America's saddest peace-officer massacre.

The Young brothers, who had been reared on a farm in a Christian atmosphere, were from a family of eleven children. Eight of the children utilized their opportunities and became substantial citizens. Three, however, did not follow in the righteous footsteps of their respected God-fearing father. These were Harry, Jennings and Paul—all of whom had served sentences in the Missouri or Leavenworth penitentiaries. They worked

as a trio, when not in confinement, stealing automobiles, cracking safes, burglarizing railroad cars, robbing, hi-jacking and shooting, not only in Missouri but in Texas, Arkansas, Oklahoma and other states. Suspicion was cast on them many times and although they served some short sentences, in the majority of cases sufficient evidence could not be produced to convict them. In June, 1929, Harry, while intoxicated, shot and killed Mark Noe, marshal of Republic, Mo., and from that time the Young brothers were sought throughout the United States, Canada and Mexico.

Even though Harry was wanted for murder and the other brothers were fugitives from the Federal Government, it was not until about Thanksgiving, 1931, that definite information became available that the trio were together again at car thieving. Along the latter part of December, two of the Young sisters, who had been living with their mother on the Young farm, were seen in Springfield on different occasions driving cars bearing Texas license plates. A hurried checkup indicated the cars were "hot" and when

the girls attempted to sell one they were immediately arrested and taken to police headquarters for grilling. Enough information was obtained to establish that Harry and Jennings were probably at the farm located 7 miles southwest of Springfield.

The Springfield police department relayed this important information to the sheriff's office where it was decided to try to apprehend the Young brothers immediately. This was the middle of the afternoon on Saturday, January 2, 1932.

The posse was hurriedly organized and consisted of eleven men from the sheriff's office and the police department. A 1½-inch gas riot gun with two long-range shells and one tear gas hand grenade were picked up at police headquarters. These two shells and the single grenade were all the chemical munitions which were taken on this mission.

Upon arrival at the farm, a preliminary inspection led the sheriff to the belief that the Young brothers had escaped as the typical two-story farmhouse, set back of a grove of maples, was locked and appeared deserted. The house was sur-

rounded and it was now decided that some tear gas should be projected into the peaceful-appearing place. One of the 1½-inch long-range shells was fired through a window into a second-floor room. Shortly a bluish-gray smoke became visible, indicating that the shell had functioned; but the Young brothers did not come out nor did they give any indication of their presence in the house. After a brief wait, the sheriff with two officers battered down the back door. As soon as it swung open, two rapid blasts of shotgun fire killed both the sheriff and the deputy and injured the third officer.

Immediately after the sheriffs were felled, it was decided to use the other gas shell in the first floor where the murderous gunfire had taken place. In the excitement, the gun was not completely closed and repeated trigger pulling resulted in naught. When the error was discovered and the gun slammed shut, the shell was discharged, traveling wide of its mark to the porch roof where it smoked for a second and then started to burn. The riot gun was now useless as this was the last shell, there having been only two available.

It was now recognized that it was essential to obtain reinforcements of officers and munitions. As the car drove away from the yard, it became a target and although the windshield was broken and considerable hits were made on the body, only one of the occupants was injured, having been hit in the leg.

The house was again surrounded by the remaining officers and, after another of their number had been instantly killed with a well-aimed rifle bullet, the last of the tear gas was used. The hand grenade was thrown through the glass in the side door. Continuous fire from the house mortally wounded three more officers, leaving only two, both of whom were now out of ammunition. They made their escape by running low in a zigzag motion with all their might to a safe distance from the house. With all of the officers apparently dead, the killers (no one knows definitely how many or who they were, except that circumstances point to Jennings and Harry Young) hurriedly packed their clothes, disconnected the ignition wires of the Sheriff's car, removed four revolvers from the dead officers and escaped unseen by foot from the rear through cornfields and orchards. By this time the sun was beginning to set.

The drama of the rescue of the dead and dying men who lay on the cold, damp ground at the Young farmhouse, is a sad commentary on the lack of preparation in many law-enforcement agencies to meet such emergencies. The officers who drove from the farm to Springfield for reinforcements covered the distance in about

ten minutes. In less time than it takes to tell of the recruiting of more officers, they had gathered guns, ammunition and tear gas and were on their way back to the scene of the pitiful massacre. Near the farm the rescue party met the two survivors and, while a plan of attack was being mapped out, additional help arrived, followed by some ambulances. It was but a short time until Federal and state officers, Missouri State Police, National Guard, a legion of armed citizens and other law-enforcement agencies were at work on the case.

Although no armored car, bullet-resisting vests or steel shields were available, a small party made their way to the house only to find that the killers had escaped. The National Guard made a thorough search of all the buildings and then threw a cordon about the place to protect all evidence. The crowd made a number of attempts to burn the farmhouse, but these were frustrated by the state troops.

A great man-hunt started immediately after it was learned that no arrests had been made at the Young farm. The first important information was received from Streetman, Texas, where an overturned motor car was discovered bearing Missouri license plates which identified it as being stolen from Springfield the night of the shooting. A shotgun and an automatic rifle belonging to the Young family were found in the car. From this point the Young brothers were traced to Fairfield and then to Houston where they arrived sometime Sunday night. All of the known hangouts of the Youngs and their friends were raided and searched, but none revealed the killers.

Tuesday morning a carpenter reported to Houston Police Headquarters that he had rented a room to two men whom he later identified, through newspaper photographs, as Harry and Jennings Young. They had arrived at their lodging place Monday afternoon. The pick of the police department were immediately mobilized and proceeded to the carpenter's bungalow, where they completely surrounded the place armed with revolvers, rifles, shotguns, sub-machine guns, gas riot guns and tear gas hand grenades. As the officers closed in on the house, they threw hand grenades into the first floor where the outlaws were alleged to be located. After a few minutes a search was made of the premises and it was found that the desperadoes had barricaded themselves in a small bathroom situated between two bedrooms with doors opening into it from each room. In making this discovery, several shots were fired, barely missing two officers when the bathroom door was forced.

As a voice from within yelled, "We're dead—come and get us"; tear gas was

projected through the bathroom window. At the same time a succession of shots was heard within. The tear gas was given ample time to spread uniformly throughout the room. When the officers entered they found Jennings Young lying on the floor. He was dead. By his side lay Harry Young bleeding profusely, but still alive. He died before regaining consciousness.

Harry and Jennings Young had stood face to face and killed each other—murderers.

Analysis and Discussion

In preparing an analysis and entering into a discussion of the tactics used at the Young brothers' raid, the writers believe that the knowledge gained from this case will be of considerable value to others confronting similar situations. We firmly feel that the city and county officials who permitted their departments to sink to such a low state of preparation for such emergencies are open to criticism and their laxness should be regarded as a lesson by other law-enforcement agencies.

The Springfield officers were forced to go to the Young farm without an armored car, bullet-proof shields or vests, sub-machine guns, automatic rifles, gas masks, screening smoke or irritant smoke; they had but a small fraction of the amount of tear gas necessary to accomplish their purpose. In other words, they were only halfway prepared, and such a measure should not be tolerated in the preparations that are necessary to properly apprehend barricaded criminals and insane persons.

Although the Young home is so situated that little coverage suitable for protection is available close to the house, we believe that it could have been successfully raided, using the following tactics: Officers provided with modern law-enforcement equipment, including long range riot guns with gas shells and Universal candles filled with various chemical agents, should surround the farm buildings at a safe distance. As the officers moved in all barns, sheds and other buildings would be searched. Two officers near the front of the house and a like number near the rear of the house, all within range and behind the best coverage available, would fire long range gas shells into the first floor, second floor and basement. Each of these two gas squads would fire at least six shells in order to build up a high initial concentration. After a ten-minute interval had elapsed without dislodging the barricaded criminals, it can be assumed that they are provided with some protection. It must be remembered that sufficient time should be allowed for the chemical agent to disperse uniformly throughout the premises. The next step

would be to fire additional long-range shells into the house which should be followed by the use of candles if necessary. In order to use candles with safety under these conditions, it would be necessary for officers to approach under cover of a smoke screen, which could be released from the upwind side. Much caution must be exercised when screening smoke is used that the criminals do not escape under its cover. As soon as the officers reached the house, they could throw irritant smoke (sickening gas) candles into the first floor and basement. About a dozen candles filled with either irritant smoke or a combination of irritant smoke and tear gas would render the dwelling uninhabitable and the high concentration of chemicals would now be incapacitating. Two officers provided with gas masks and properly armed and protected, should enter the premises and make a thorough search of the first floor. One or two additional officers should be enlisted when the second floor and basement are searched.

It is the writers' firm belief that, had sufficient chemicals been used as outlined above, no officers would have become fatal casualties during the raid. The Young brothers would have probably reacted to the chemical munitions the same as they did to the gas at Houston and killed each other in their last stand at the Springfield homestead.

Solution of Problems

In presenting solutions to the problems set forth in the previous article, the writers wish to state that a number of solutions might be given, any of which would accomplish the mission. Although certain basic principles will be followed in any solution, the reader should not feel that his solutions are incorrect even though they differ in many details from those presented herewith.

Problem No. 1

A Barricade in a Center of Population

A solution:

Captain "C" orders one patrolman to the corner of Grand Avenue and 46th Street where he will stop all traffic moving east on Grand Avenue and through the alley in the rear of the flat.

A patrolman is likewise ordered to the corner of Grand Avenue and 47th Street where all traffic moving west on Grand Avenue and through the alley in the rear of the flat will be stopped.

Insofar as possible, the inhabitants of the immediate neighborhood are warned to keep indoors with all windows and doors closed. The occupants are requested to leave the east and west adjoining flats (Nos. 4616 and 4620 Grand Avenue) until the criminals have been apprehended.

Captain "C" studies the situation and decides to gas the flat from the front and rear at the same time. In carrying out this plan, he will form two details, each in charge of a sergeant.

Sergeant "X" will take his detail of three men to the front of 4618 Grand Avenue with two short-barrel repeating shotguns, six fast-burning CN candles, six CN hand grenades and four gas masks. The sergeant will place himself and his men behind such individual shelter as can be found, covering the door and all windows. Two windows will be broken on each floor by gunfire. One man will throw three candles into each floor of the flat. He of course will be covered by the two riot guns.

Sergeant "Y" with his detail of three men and like equipment proceeds to the rear of the flat, where he functions exactly the same as Sergeant "X." He directs that only two candles be thrown into the first and second floors, which leaves two to be used in the basement.

The attack of both details will be made exactly at 10:30 a. m. At 10:40 a. m. an attempt will be made to draw fire from the criminals. If fire is drawn, the CN hand grenades will be used in the same manner as the candles. After ten minutes, the high concentration of gas now in the building will be incapacitating.

Captain "C" and two men with properly fitted gas masks will enter from the front and make a thorough search of the first floor. If the criminals are not located on the first floor, one additional officer is detailed to assist in searching the second floor and basement. Extreme caution will be used to prevent the officers firing on each other.

Problem No. 2

A Riot in a Penal Institution

A solution:

Warden "Cherry Hill" at 9:32 a. m. issues the following instructions:

To First Assistant Deputy Warden, "Have the guards on the wall doubled. Arm the extra guards with riot guns. Instruct all guards to shoot to kill any armed convict offering resistance or attempting to escape."

To Secretary, "Get chief of police, 'San Francisco,' on the telephone."

As soon as the chief of police is reached he states very briefly that a riot has broken out and requests the immediate dispatch of the city police riot squad to "Cherry Hill." This request is granted.

Warden "Cherry Hill" then goes into the main building, taking with him three of his staff (Second Assistant Deputy Warden and two guards). From the east and south wings of the main building he estimates the situation and begins to form-

ulate his plan to quell the riot. He directs his secretary to call the fire department and request a fire detail be sent immediately to "Cherry Hill."

To Second Assistant Deputy Warden, "Call all the night guards out. Direct them to report without delay."

At 9:50 a. m., Captain "Riot Squad" of the city police force arrived with 20 men in five squad cars. The fire department detail arrived at the same time.

Warden "Cherry Hill" leaves the main building from the office and goes around the north wall to guard tower No. 3. He sends for Captain "Riot Squad" and Lieutenant "Fire Department." From this position he notes the direction of the wind and makes his decision as to the actions necessary.

At 10 a. m., Warden "Cherry Hill" issues the following orders to the group assembled in guard tower No. 3:

"You are familiar with the situation."

"We will attack the main shop building from the east and north sides using chemicals and automatic arms. Tear gas (CN) fast-burning candles and irritant smoke (DM) candles will be used. The principal attack will be made on the east wing of the shop building from the vicinity of guard tower No. 9."

"Time of attack 10:45 a. m."

"Captain 'Riot Squad' will conduct the attack from the wall near guard tower No. 9. Nine windows will be broken by gunfire, three on each floor, at equal intervals on the east side of the building. Then eighteen CN fast-burning candles will be thrown into the building, six on each floor, after which nine DM candles will be thrown through the same opening. Gunfire will be used to cover men throwing chemicals."

"First Assistant Deputy Warden will take seven men into the east and south cell blocks. He will direct the firing of thirty long-range tear-gas field-gun shells into the shop west wing, ten shells to the floor."

"Second Assistant Deputy Warden with ten men will be prepared to enter the main shop building by way of the ice plant on my order. This detail will be equipped with two automatic rifles, two riot guns, twenty CN candles, ten DM candles and eleven gas masks."

"Lieutenant 'Riot Squad' will warn all inhabitants south of Warren Avenue and east of Cherry Street, to a distance of three blocks, to remain indoors with windows and doors closed from 10:40 a. m. until further notice."

"Lieutenant 'Fire Department' station your apparatus outside the vehicular gate and be prepared to pass hose lines over the wall between guard towers No. 9 and No. 7."

"Sergeant 'Night Guard,' have all men now in cell blocks confined to the north

wing so that none remain in the south and east wings in the main building. Have gas masks distributed to the double guards at guard towers Nos. 8, 7, 6 and 9. All windows and doors in south wing, main building, quarters, office and residence will be closed at 10:40 a.m. until further orders."

"Sergeant 'Day Guard,' have the men in the east enclosure pass through the gate and north of the disciplinary cell block and then confined in the disciplinary cell block. Detail three men to remain with me here. Have the storekeeper send here 500 rounds of ammunition for automatic arms and riot guns and 48 candles equally divided between CN and DM fillings. Direct the Secretary to call the city hospital and request the services of six physicians. Make arrangements to establish a temporary hospital in the main building."

"It is now 10:05 a. m."

"I will remain here at guard tower No. 3."

"Have you any questions?"

"That will be all."

First-Aid Measures

It is deemed very desirable for law-enforcement agencies to administer first aid to those whom they have exposed to a concentration of chemical agents. Brief instructions for the treatment of gas casualties are as follows:

(a) Tear Gases:

The most immediate relief from exposure to a concentration of tear gas is to remove to fresh air and stand facing into the wind and open the eyes as much as possible. Do not rub the eyes after lachrymation, as this will increase the irritation. Sometimes blowing the nose assists. The eyes may be washed out by means of an eye cup with a saturated boric-acid solution or with a 2% solution of sodium bicarbonate (baking soda) if inflammation continues. If eyelids swell, cold compresses should be applied. If nose and throat irritation has been severe, an alcohol solution of camphor, menthol and eucalyptus should be used.

(b) Irritant Smoke:

Wash the nose and throat with saturated boric-acid solution, or simply saline solution, which can be prepared by adding a teaspoonful of common salt to a pint of water. Rest should be accorded those who have been exposed to a heavy concentration of irritant smoke.

(c) Screening Smoke:

It will not be necessary to render first aid to personnel who have been exposed to a concentration of screening smoke.

Eastern Police Regional Matches

THE dates for the Eastern Regional Police School and Eastern National Matches to be held at Harrisburg, Pennsylvania, under the auspices of the Pennsylvania Highway Patrol and the National Rifle Association, have been set for the week of August 15 through August 20. The matches are being conducted solely for the benefit of the peace officers of the Eastern States.

As most readers of *THE RIFLEMAN* know, there are to be no national events staged at Camp Perry this year, the regional competitions to provide shooters with the best possible substitute. In this instance, the Eastern shoot will provide those in attendance the same advantages they would receive at Perry.

The primary purpose of the school is to instruct in the varied subjects which make up an adequate field training course for the modern police officer—care and handling of revolvers, tear gas, smoke bombs and jiu-jitsu.

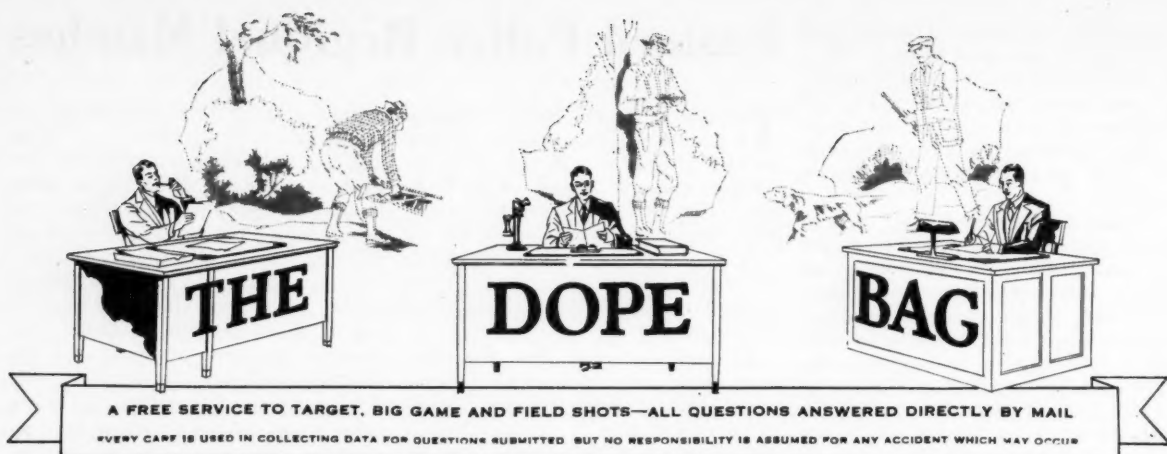
The instructors at the police school are officers of the Regular Army and Pennsylvania State Highway Patrol, specialists in pistol shooting, disarming, chemical warfare, and civilian technicians in such subjects as tear gas, smoke bombs, etc. The expenses of these instructors are borne by the Pennsylvania State Highway Patrol or the National Rifle Association. Police officers in attendance at the school will be comfortably quartered in tents. During the first two days of school the instructors show how to strip the Thompson sub-machine gun, then how to assemble it. The care and cleaning before and after firing is impressed upon students. Not until after the officer is proficient in the above is he permitted to receive instruction in firing the sub-machine gun. From one to one and a half hours each day are devoted to the subject of gas. The police officer is told how grenades and bombs are made and instructed in the safe handling and storage. Not only does the student learn about the use of gas against criminals but he is taught protection against gas bombs when used by the criminal. Instruction in the use, care and fitting of gas masks is part of the daily routine. The officer is shown how to enter gas clouds with and without a mask. He is given instruction in first aid for gas casualties, and the theory of tactical employment of gas by police to neutralize gunfire. Each student receives about seven hours in hand-to-hand fighting and disarming, starting with an outline of the course and demonstrations.

Instruction and practice in disarming tricks against pistol, knife, club, etc. Taking prisoners, come-alongs, hammerlocks and wrist twists are part of the course, which includes each day a review of the previous day's lessons. The handling of prisoners, disabling tricks, strangling and bone-breaking holds with special defenses against attack from front and rear, are part of the course. Special tackles, trips, throwing opponents overhead and the Japanese death locks are taught.

On the morning of the first day at the police school, after competitors have reported to the camp director for registration and assignment to quarters, about two and one half hours are devoted to the revolver and pistol. The time is given over to conference and demonstration of the safe handling of all firearms, how to load and unload, safety rules and safety devices. Then there are position exercises: How to hold, aim and fire, and the importance of trigger squeeze, instruction firing at slow fire on the Standard American target at different ranges being given the last half hour of the morning. Opportunity will be given to shoot for qualification medal at 50 yards. Almost two hours of the afternoon session is given over to quick and rapid fire exercises, including instruction firing at 25 yards in groups. The Standard American target is used at slow fire, this target having the 8, 9, and 10 rings black. The 10 ring measures 3.36 inches. This same target is used at 25 yards for timed and rapid fire, except that the 9 and 10 rings are black.

There will be a special range provided on which there will be running-man targets, as well as bobbing targets at 50 yards. All the different kinds of conditions and situations which a police officer would be likely to meet have been reproduced for their instruction and training.

The matches which are to be fired on the Harrisburg range are the Individual Field Firing Match, the Police Team Field Firing Match, the Individual Police Pistol Match and the Police Pistol Team Match. The winners of the Individual Matches are to receive gold medals, second-place winners, silver medals and third to tenth, bronze medals. Cash prizes are also provided. In the Police Team Field Firing Match, the winning team will receive silver medals, second and third teams bronze medals. The high team of the Police Pistol Team Match will receive the trophy, and silver medals. To the second and third teams, bronze medals.



Conducted by F. C. Ness

The Tang Peep Sight

THE basic principle of the peep sight is to have a small aperture *close to the eye*. All the early peep sights were mounted on the tang of the rifle. No one experienced in the use of this type of sight will question its efficiency.

For years the tang sight was the only type of peep sight in use, and its popularity was great and its field extensive. The closer the sight could be placed to the eye the better, so long as the sight did not strike the eye when the rifle recoiled.

Then appeared upon the market rifles with a very long bolt throw, such as the Model 95 Winchester. With such rifles a peep sight could not be rigidly mounted on the tang because it would be struck by the bolt in its rearward travel. To supply the demand for a peep sight on such rifles the first receiver sights were developed. Rifles with long bolt throws had come to stay, and with the general acceptance of the Springfield and other bolt-action rifles, the receiver sight was perfected to a high degree and became permanently established in the shooting world.

When a peep sight is mentioned today most persons think of a sight similar to the Lyman 48, especially the younger generation. But ask the older shooter. He knows that, after all, the receiver sight is a makeshift; it violates the basic principle of a small aperture *close to the eye*. No eye can aim quite as well with a receiver sight as with a tang sight, and some eyes that have no difficulty in using a tang sight cannot use a receiver sight satisfactorily—not to mention the greater speed

of the tang sight on moving objects, and the disfiguration of a beautiful rifle when a receiver sight is mounted on it.

Happily, the stage is set for the return of the tang peep sight. The single-shot rifle, in modern garb and for modern ammunition—and still considered by many to be the ideal type for many purposes—is coming back. And it is going to bring back the demand for the tang peep sight.

We have good tang sights today for general hunting use, but they could be made better; but we have no real tang target sight which equals in mechanical excellence sights like the Lyman 48. There is the Lyman 103, which was considered fairly good years ago. What we need is for some company to bring out a tang sight that will be good today—as up to date and efficient as the splendid rifles on which it will be used. The arms manufacturers are giving us the rifles; are the sight manufacturers going to give us the sights, or are they going to be caught asleep at the switch?

We have four prominent makers of tang sights: Lyman, Marble, Watson and King. At least one of them should design and produce a tang sight with *reliable* micrometer “click” adjustment in both planes. It should permit $\frac{1}{4}$ -minute (on a 30-inch sighting base) windage and elevation movements with accuracy and without lost motion or back lash. We have no such sight; and it is needed particularly for fine small-bore target arms like the new 417 Stevens, imported falling-block single shots, the Martini-action rifles, and remodeled

American single-shot rifles of Winchester, Stevens and Ballard, make in .22 Long Rifle, .25 Stevens, .25-20 S. S. and .22 Hornet calibers. These cartridges are finely accurate; and, in fairly heavy barrels, qualify for match work or small-game shooting, which latter is the field application of fine match shooting. This work demands a sight system of maximum efficiency, and the peep near the eye on the tang is the only metallic sight which can compete with the scope sight. The recoil is light in these arms and the peep disc may be rested against the brow if desired to gain the maximum orthoptic advantage of a small aperture and the maximum mechanical accuracy of the longest possible sighting base.

The scales on stems and sleeves should have easily read figures and graduations; but “clicks” are needed none the less, because no intelligent marksman is going to jeopardize his score by attempting to read any scale near his nose once he has firmly settled into shooting position. Nor can he check on back lash, and it is imperative that the “clicks” in both planes be absolutely dependable and without as much as $\frac{1}{4}$ minute lost motion. As the result of years of propaganda (not deliberate, perhaps, but likewise never checked) the receiver sight is at present riding the crest of a wave of popularity, in spite of the fact that it is an inefficient abortion on all popular small-bore single-shot target rifles. Given a properly designed and well-made tang sight by one of our prominent manufacturers, a new cycle of popularity is

assured at once for this more efficient and neater appearing type of sight.

The Marlin Autoloading Rifle

THE Marlin Model 50 is an interesting rifle because it has neither firing pin nor extractor. It is the blow-back type of autoloader, chambered for the .22 Long Rifle cartridge. The clip magazine holds six cartridges. The magazine is inserted from the bottom through the forward tang of the trigger guard; a light spring latch holds it in place. When the loaded magazine is in place the action block is drawn back by its handle until it locks open in cocked position. With the action open and with the chamber empty the gun is ready to fire.

When the trigger is pulled the action block slides forward pushing the top cartridge in the magazine ahead of it into the chamber and at the same time firing it the instant the action is completely closed. A wedge-shaped projection across the face of the action block does the job of detonating the primer. The recoil thrust of the cartridge sends the action block back to cocked position, and at the same time blows the fired case out of the chamber.

The inertia of the action is not overcome until the bullet is at or near the muzzle. Consequently the action block does not start moving until pressures have been diminished by the increased space between bullet and case. The coil mainspring absorbs the shock of recoil as it is compressed by the recoiling action block. An auxiliary weight between the action block and the spring is employed to regulate resistance. This steel balancing block, shaped like a miniature rolling pin, is replaced by a heavier one (which comes as an extra part with each rifle) when high-velocity ammunition is to be fired. There is a safety lever on the left of the receiver near the grip for locking the trigger when the action is open. The best way of avoiding accidents is to withdraw the magazine, too. There is also an auxiliary rod extractor on the right of the barrel breech in anticipation of stuck cases.

The fact that the gun cannot be fired when the action is closed is bound to be confusing to any one who has used or has seen in use any bolt-action rifle. This is not a safety feature, because a live cartridge may be in the chamber, and when the action is opened there is no extractor to withdraw that live cartridge with the cocking motion. With magazine empty that cartridge could be accidentally fired.

More confusing and dangerous is the fact that this rifle is ready to fire when the action is open. Shooters everywhere have learned that a trigger may be pulled without danger when the bolt is drawn

back ever so slightly from its closed position. In the case of this Marlin the trigger is all set and ready to speed the bullet on its way even when the action, visibly and unmistakably, is wide open. This reversal of the conventional makes this action highly misleading. In short, the Marlin Model 50 is too dangerous to be placed in the hands of any boy, not to mention careless men.

For that experienced shooter who is both careful and cautious the Marlin Model 50 is a practical light-weight "plinking" rifle. The price is very modest for an autoloading type of arm. It has a good barrel and a good stock for this kind of informal shooting, although the forestock could be several inches longer for a long-armed man. The open rear sight is adapted for "tin-can" shooting and nothing else. A good ivory bead front sight is standard equipment. The fact that the heavy action slides forward when the trigger is pulled would imply a considerable disturbance to the aim. Theoretically, this is true, but actually, it does not impose much of a handicap in "plinking."

Bear in mind this is not a target arm, or even a training rifle. Fired with Kleanbore as it came from the factory, it made $\frac{3}{4}$ " groups at 50 feet. With target sights the groups would have been easily $\frac{1}{8}$ " smaller. From standing a 1" group was obtained at this range.

The first Model 50 tried failed to function. The takedown and assembly screw passes through the trigger guard tang and forestock. The guard is made of thin metal and springs easily. When the screw was turned in tightly, as intended, the guard was squeezed toward the wood and this carried the magazine too deeply into the action well. The result was that the action block was obstructed and jams were caused. The best performance was three shots in succession. However, when the arm was used as a single shot, three brands of high-velocity ammunition were fired without getting a bulged head or burst rim. The only trouble then encountered was in extraction. The gun was returned with a negative report.

Another gun was shipped from the factory together with several hundred rounds of Kleanbore and Palma Hi-Speed ammunition. This gun and ammunition functioned with perfect satisfaction. In fact we were unable to balk it by using the Hi-Speed ammunition with the light balancing block and regular Kleanbore with the block intended for high-velocity ammunition in place. Even when the magazine was filled with .22 Short cartridges, only one bobble occurred, and that was because the action block did not come back far enough to lock, resulting in a double shot.

This particular gun showed surprising accuracy. Using the factory open sights from prone rest at 50 yards, Mr. Hoffman fired four 10-shot groups which measured, center to center, $2\frac{1}{8}$ " and $1\frac{1}{8}$ " with Kleanbore, and $1\frac{1}{8}$ " and $1\frac{1}{2}$ " with Palma Hi-Speed. That is an average 10-shot group diameter of 1.53" for 40 shots at 50 yards, which is remarkable considering the natural error of aim with open sights.

This fine showing may be honestly accounted for by the weight of the barrel, the one-piece stock, and the positive and uniform ignition afforded by the impact of the heavy action block against opposite portions of the rim at once. The Marlin Model 50 is inexpensively constructed and not particularly attractive in appearance, but it is well proportioned for off-hand plinking. If this one is a fair sample, it is the "most" plinking rifle for the least money on the market. Also, it must be said, it is the most dangerous rifle on the market when entrusted to comparatively inexperienced shooters.

The Savage 23-D Hornet

THE new 23-D Savage Hornet rifle is one of the old well-known series of Savage Model 23, bolt-action, box-magazine rifles, but in a new caliber, of high-pressure steel material and with an improved stock. Judging from the sample, the trigger pull and the safety have also been given attention, as both are smoother in operation. The only flaws encountered in an otherwise perfect performance was a bit of roughness in the opening motion and some little extraction trouble. The rim channel of the magazine is on an arc and holds the cartridges tilted. Cartridges having unusually thick rims tend to become wedged in this curved groove.

This new rifle makes available, for the first time, a properly stocked .22 Hornet caliber magazine rifle at a moderate price. With factory open sights the cost is about \$30; with the cheaper type of peep sights, under \$35; with the excellent Lyman 48-Y receiver sight, about \$40; and with the No. 438 Lyman or Malcolm No. 4 telescope sights, about \$50. There is no provision for a shooting sling, the addition of which would increase the cost from \$2 to \$5, according to the type of sling equipment selected.

The stock is very good, being designed for a man's use. The forestock is 16" from trigger to tip, and the shotgun type buttstock measures $13\frac{1}{2}$ " from the same point. The steel buttplate measures $1\frac{5}{8}$ " x 5". The comb is 9" long and the drop is $1\frac{3}{4}$ " and 3" from the 50-yard line of sight. A $3\frac{1}{4}$ " pistol grip and a pitch down

of 2" at the muzzle completes the picture.

The chamber allows cases to expand to .2465" at the neck and to .2955" near the head. The accuracy of the 25" barrel is good. With a carefully selected lot of ammunition and target sights it should be capable of 2" groups at 100 yards. With the open sights as issued the W. R. A. cartridge averaged 1 3/4" 10-shot groups at 50 yards. The sight base was 23" long.

A higher gold bead sight and the 48-Y receiver sight were substituted. This raised the line of sight .060" and increased the distance between sights 7". Our average 10-shot groups obtained at 50 yards with three brands of Hornet factory ammunition were as follows: W. R. A., 1.32"; Peters, 1.64"; Remington, 1.75". With the best load a direct score of 99 x 100 (including 7 V's) was fired on the N. R. A. target at 50 yards.

The 23-D Hornet weighs only 6 1/2 pounds. It should be equipped with either of the two scopes mentioned which would bring its weight to 8 pounds, and which would bring out all the accuracy of which it is capable. The sample rifle shot to the same zero with each brand of Hornet ammunition tried. Apparently the 23-D rifle is more accurate than the 23-B and 23-C models, in addition to the flatter trajectory advantage offered by its .22 Hornet bullet in comparison with the .25-20 and .32-20-caliber bullets. Combined, these qualities make it a better small-game rifle. It should prove very satisfactory up to 150 yards on coyote, fox, woodchuck and smaller game.

Malcolm Rifle Telescopes

FREQUENTLY I have been asked about the products of the Malcolm Rifle Telescope Company, Auburn, N. Y. Many N. R. A. members have been forced to seek lower costs in shooting equipment and the Malcolm telescope sights sell at a lower price than those made by Lyman, Fecker and Belding & Mull.

The price of the highest grade Malcolm No. 1 telescope sight, which uses achromatic lenses throughout, is less than half that of the high-grade Belding & Mull and Fecker target scopes, all considered equipped with each maker's best target mountings. The Malcolm No. 1 scope without mountings is about one-half as expensive as the complete Lyman 5-A target outfit. The Malcolm No. 4 scope with mountings sells at practically the same price as the Lyman No. 438 Field Scope.

The Malcolm scopes are made only in 3/4" tube diameter, and without enlarged eyepieces or enlarged objectives. The tube lengths available are 14", 16", 18" and 20". The No. 1 scope is obtainable

in various magnifications ranging from 4x to 10x. The No. 4 scope is made in 4x, 6x and 8x.

The field of view of these two scopes at 100 yards is as follows: 4x, 25.5 ft.; 6x, 18 ft.; 8x, 13.5 ft. The choice of reticules includes aiming post, cross-hairs and cross-hairs with dot in center. This dot covers more than 1/3" and less than 1/4" at 25 yards. The cross-hairs themselves are fine. The eye relief is about 1 3/4", but a 2 1/2" eye relief can be had upon special request. The longer eye relief reduces the field of view but is desirable on medium power arms, like the .30-30 Winchester, and necessary on all rifles giving greater recoil.

The tube metal is thin, making the scopes light in weight, and the adjustments for changing focus and correcting parallax are simple. A long plate at the front end of the tube is moved back and forth (after loosening its single screw) until the focus is sharp. Similarly, a short plate near the ocular end is moved to clear up the reticule and to remove parallax. One of my Malcolm scopes adjusted nine months ago has not slipped or changed. Metal caps threaded to either end of the tube protect the lenses from rain, dust, oil marks, or injury while the instrument is being carried to the shooting place.

The No. 1 scope in 8x almost equals my fine 7x target scope in definition; the No. 4 scope is not quite as good. With the No. 4 scope I could see the figures on a yardstick in the shade at 25 yards. With the No. 1 scope I could read the figures and also see the smallest division marks on the rule. My No. 1 scope is grooved for Lyman 5-A target mounts. On various rifles of light recoil it has helped to make the smallest groups obtained with these arms. The No. 4 scope, in Malcolm "C" mounts, has been used only on a Model 33 Remington, which has averaged smaller than 1" groups at 50 yards with selected ammunition. This outfit has not been tried on the .30-'06, but I am sure the scope will stand the recoil because it is light and is left free to slide in the Lyman mounts.

The Malcolm "C" mounts are clamped to the tube and do not permit the instrument to slide. These mounts are excellently designed. The front mount ring is movable across a windage scale and is provided with right-side and left-side thumbscrews for controlling adjustments. There is no possibility of any arc movement of the tube. Adjustments in one plane are independent of those in the other plane. The rear mount is in the form of a yoke in which a square collar slides, carrying the scope in a true vertical plane. The elevation scale is cut into the rear face of the left arm of the yoke.

The adjusting screw in the bottom of this arm is marked with 12 divisions, each representing one inch in group movement at 100 yards (or a minute of angle) when the mounts are spaced 7 1/2" apart. Adjustments are reliable, the lock provided is positive, the mounting is strong and durable and any adjustment once made is permanent until deliberately changed. There is no danger of inadvertent changes in adjustment as there are no springs to become sluggish or to vary in tension. The feet of these mounts are screwed directly to the barrel thus gaining a lower position of the instrument. This makes a fine hunting sight for exclusive use on varmint rifles. These mounts are also furnished in detachable type with dovetail bases narrower and lower than standard dovetail bases.

The Malcolm scopes are also available in 2 1/2x and 3x to provide a larger field and universal focus for hunting purposes. With regular short eye relief, suitable for .30-30 caliber and lighter calibers, these scopes give a field of view at 100 yards of 45 feet and 34 feet, respectively, making them practical for running game. The "C" mounts make the Malcolm sights stronger and more reliable for hunting than any of our conventional target scope sights, but not as sturdy as conventional hunting scope outfits. They are entirely practical for coyote hunting in the West and should prove practical for deer and black bear hunting in the East. The "C" mounts are not as conveniently and finely adjustable as our best target mounts and the Malcolm sight cannot be compared with a fine target match outfit, like the Fecker.

The New Western Ramp Sight

IN DESIGNING the new Western Gun Sight Company ramp sight, sharp angles and corners were studiously avoided, and the result is a thing of beauty. The sweeping curves of this neat little ramp will help to dress up the muzzle and put the desired finishing touch on that special rifle which all riflemen love to plan.

The Western ramp sweeps upward from the barrel in a changing curve, having its shortest radius near the top. The face of the ramp is not flat but convex, and it is sharply matted, leaving a very attractive surface. There can be no annoyance from light reflections from such a ramp. The whole thing is neat, having an overall length under 3"; the barrel band is less than 1" long and its back edge is curved to meet the barrel gracefully. The deep blue finish is very fine. Without hood it is an especially attractive muzzle sight.

The one I have is intended for a 24" Krag barrel and the height from the bore

axis to the top of the blade is 1-1/16". However, these sights may be obtained for practically any combination or purpose within reason. The band is driven over the muzzle to a snug fit, allowing a barrel projection of at least 1/4" and up to 3/8". A concealed setscrew with a hardened point holds the ramp from rotating and slipping after it has been properly aligned. The top of the base is slotted lengthwise for the base tongue of the interchangeable sights. A cross-pin through the base and the tongue secures the sight. The curved face of the sight is matted and its sides are curved to harmonize with the lines of the ramp and the band. Besides the plain square-top blade (.065" wide) and the gold-tip blade, there are available ivory beads and flat-faced gold beads in 1/16" and 3/32" diameter.

The ramp may be obtained with or without hood. Those supplied with the hood are slotted. In the right-side slot is imbedded a hard steel ball which fits into a notch in the hood to hold it securely. For hunting and for neatest appearance the flat gold bead or gold tip without hood is best. For target work and for best accuracy the blade sight with hood is best.

The Lyman 48-Y Receiver Sight

THE fine new series of match-type receiver sights, recently placed on the market by Lyman, include the 48-J for the 52 Winchester, the 48-L for the 417 Stevens and the 48-Y for the 1919 Savage and the Model 23 Savage Sporters. These sights are characterized by easy, positive, micrometer, "click" adjustments in 1/4-minute-of-angle units. Windage and elevation knobs are large, convenient and their "clicks" are very distinct. None of these sights require cutting of the stock and the 48-J and 48-Y models are very easily attached, no drilling and tapping of the receivers being necessary.

The 48-Y is mounted on the left side of the Savage receiver at the extreme end of the receiver, farther back than the factory receiver sight. The base extends forward on top of the receiver so that the attaching screws may utilize the two holes provided for the Savage receiver sight on all Model 23 Savage Sporters. This extension base also serves as the rear scope base for Lyman mounts as it is shaped for that purpose. In five minutes time we drove the factory sights out of their slots on the 23-D Savage barrel and fitted the 48-Y receiver sight and a higher front sight. The new front sight used is about .060" higher than the one used with the factory open sight. The 48-Y brings the target disc near the sighting eye and gives

the maximum distance between sights for greater mechanical accuracy of aim.

On the sample the total elevation movement was 40 minutes above the zero adjustment. The windage movement apparently is 24 minutes to the right and left of the zero position. The 5-minute-of-angle divisions of the elevation scale equal 20 "clicks" with the knob; the windage knob requires 16 "clicks" to equal one 4-minute-of-angle division on the lateral scale. Zeroed at 50 yards with the factory front sight, the higher front sight grouped 3 3/4" low and required 7.5 minutes elevation or 30 "clicks" with the elevation knob.

The 48-Y is the best rear sight obtainable on the Savage 23-D rifle and the other rifles in this series. Tang sights are unsatisfactory on bolt-action rifles because there is no metal along the grip of one-piece stocks to afford a solid fastening for tang type sight bases.

Questions and Answers

THE NEED FOR A COMBINATION GUN

THE recent developments in arms and ammunition have given to us shooters some things that have been needed for many years. However, there is a field which as yet has not been touched and which I believe is a fertile one. I refer to the combination shotgun and rifle; this gun to be a regular double hammerless shotgun, standard in every respect, except that one of the barrels be a rifle barrel for some good cartridge.

A very powerful rifle cartridge would not be necessary, as this would be a general-purpose, knock-about gun rather than an out-and-out big-game proposition. However, the new Winchester double hammerless shotgun, built of chrome-molybdenum steel, heat treated, possesses a tremendous margin of strength, and could, I should judge, handle with entire safety the .30-'06 cartridge should such a heavy load be desirable.

A gun that looks particularly attractive from this angle is the new Remington Over-and-Under. Here is a gun that handles fast and has the narrow sighting plane to which a rifleman is accustomed. Any rifle barrel is greatly stiffened and ought to shoot finely when combined with a shotgun barrel and the over-under arrangement would appear to be a very fortunate one in this respect. From the construction of the barrels in the Remington Over-and-Under it would appear to be a very simple matter indeed to put a rifle barrel in place of one of the shot barrels.

Then there is another possibility. A good gunsmithing concern (Sedgley, particularly, though there are others) could easily fit a rifle barrel into one of the shot barrels of a double shotgun. Sears, Roebuck & Co. once sold rifle barrels for this purpose that anyone could install, though I believe the rifle barrel ought to be fitted carefully and tightly by a professional gunsmith.

Of course a gun of the type mentioned would not be carried on every hunting trip, but there are many occasions on which it

would be most desirable. Comparatively few persons can afford to take extensive big-game hunting trips, or to belong to expensive duck clubs, etc.; most of us must take our hunting where we can find it, often but a few miles from home. With game growing scarcer every day, most persons are glad to get a shot at anything just so it is legal; yet how many times are we obliged to pass up feathered game because we are armed with a wood-chuck rifle, or vice versa!

It seems to me that our firearms manufacturers would do well to give serious consideration to this matter at the present time. I believe that here lies a field that could be profitably cultivated.—H.T.F.

Answer: I am glad you brought up the idea of American-made combination guns. This is a matter which it behooves the American gunmaker to consider most carefully. Combination guns (rifle and shotgun), not to mention double-barreled rifles, are not as popular among our sportsmen as they are in Europe. This is probably due to the fact that this type of arm has never been readily available in this country. It is also partly our own fault, because we have kept arms manufacturers busy perfecting old conventional models by our continually stressing the importance of superb accuracy, flat trajectory and surplus power, all to the one end of achieving long-range efficiency in our sporting rifles.

The fact that the Remington Arms Company has placed on the market an over-and-under gun at a popular price seems to herald a new era in American arms making that offers distinct possibilities for popularizing the combination rifle and shotgun. The lower barrel of the Model 32A Remington shotgun could well be devoted to some practical rifle cartridge which would make it a very useful general-purpose sporting arm. Because the barrels are free or independent of each other in this Remington over-and-under shotgun either barrel could be transformed to a rifle without involving practically any complications.

I do not foresee any great complications in doing the same thing in the side-by-side double-barrel shotgun, because the attached shotgun barrel would serve to stiffen the rifle barrel. It is not likely that either barrel of such a sporting arm would be fired continuously enough to cause abnormal heating and warping. The extremely strong and well-made Winchester double gun would be the logical basis for a combination gun. The Winchester factory is already equipped to make the rifle barrels needed, and it has demonstrated that requisite ability of making interchangeable parts to a degree of accuracy which insures perfect fit. They could produce extra sets of interchangeable barrels to transform their double gun to a double rifle or a rifle and shotgun in combination.

We would not be seeking a superlative degree of accuracy in such an arm, but rather extreme usefulness and convenience, together with sufficient accuracy for game shooting over moderate ranges. The following rimmed cartridges would be most useful and most readily adaptable to the purpose: .45-70, .30-40, .25-35 and .22 Hornet. The first two would prove very useful when the shotgun is carried in big-game country, and the latter two are small-game and varmint cartridges. Considering the 300-grain High Velocity cartridge in the .45-70 caliber, the velocity would be slightly above 2,000 f. s. in all of these cartridges, and the breech pressure would be practically 40,000 pounds for each.

The only complication which might arise lies in the harder metal used in rifle primers as compared with shotgun primers. However, this is no real difficulty since we are considering double guns in which a separate hammer, firing pin and lock is used for each barrel.

If the two leading American arms manufacturers refuse to bring out a combination gun, it would be profitable for some large manufacturer of custom-built arms, like R. F. Sedgley, Inc., to consider introducing such an arm to the American trade.

I do not think the inserted rifle tube would prove satisfactory with modern rifle ammunition. The old .38-55 and .32-40 black-powder cartridges for which such tubes were once available may be considered obsolete and not popular enough to warrant manufacture. A rifled tube for use in a shotgun barrel would undoubtedly be practical if chambered for the .38-44 handgun cartridge. It would make a very useful combination for the Central American and South American jungles, as the .38 Special cartridge is popular and readily obtainable there. For North American use the .32-20, .38-40, .44-40, .44 Special and .45 Colt calibers would be demanded, according to the caliber of the handgun regularly used by the purchaser.

.30-40 AND .33 WINCHESTER COMPARED

I WOULD like to ask one question: Which is the hardest shooting gun, a .33 Winchester, lever action, or a .30-40 Krag, both using the same grains of powder. I had an argument on this, so please settle it for us.—A.R.

Answer: The .30-40 Krag action and the .30-40 Winchester Model 95 action are stronger than the Model 1886 Winchester action for the .33 Winchester cartridge, because they are built for higher pressures. The most powerful factory loads in either caliber are as follows:

.33 Winchester	200 grain	2,200 f. s.	2,150 ft. lbs.
.30-40 Krag	220 grain	2,200 f. s.	2,360 ft. lbs.

In direct answer to your questions concerning the hypothetical use of the same powder charge in both cartridges, the .30-40 Krag would be still the more powerful of the two. If we were to use 44.5 grains weight of Hercules No. 300 powder in either case, the .33 Winchester bullet would give 2,300 f. s. muzzle velocity and the 200-gr. bullet in the .30-40 would give 2,500 f. s. These loads, of course, are impractical in either gun, and are not to be recommended, although the Winchester actions in either model, respectively, would stand a single load of this kind fired as a proof charge.

LUGER AND .38 COLT SPECIAL

I WOULD like to have you compare two pistols, the Luger and the Colt .38 Special. I have a Luger, but will dispose of it and buy the other gun if you think it is superior on the following points: Which is the quicker to get into action if it is carried in a holster or thrust into the waistband? In shooting without conscious aim which may be fired the more accurately? I know that the .38 Colt Special is more accurate than the Luger when aim is taken. In other words, what I wish to know is which is the better weapon to use in an emergency or for practical self-defense?—T.C.

Answer: The Luger pistol does not have a very good trigger pull for timed or deliberate fire, although the weapon is classed as a very accurate arm. The .38 Colt Special could be used double action for quick work, and could be gotten into action as quickly as the Luger. On the other hand, the Luger is a more natural pointer for close-range work without alignment of the sights, and would be superior to the revolver in this respect. Ballistically, I would consider the .38 Special loaded with the 200-grain Super-Police type of cartridge to be superior for short-range work with the one exception that there are more cartridges available in the Luger, or a greater reserve supply of shots. These could be directed more efficiently in this kind of shooting on account of the better pointing facility of the Luger. This seems to give a point or two to the Luger, but what would mitigate against it is the fact that absolutely reliable ammunition would have to be used in it to equal the revolver in certainty of functioning.

.45 COLT BLACK POWDER LOAD

I WISH to bother you again for some information relative to loads for the .45 Colt cartridge.

I have a B. & M. mould for their 454250 bullet and wish to make heavy black-powder loads. What temper or alloy shall I cast the bullets? I size them to .454" for the black powder. Is that correct? I have been using 1 to 30 alloy bullets ahead of 1 gr. No. 80 plus 40 gr. FFg black. With this loading I am seating the bullet out one groove farther than the seating groove, but this still crushes the powder. How can I get away from this compression of the powder? I am using the long cases as procured with the Remington heavy black-powder load.) What is the best powder to use for the priming charge and how much should I use? I have used 1½ gr. No. 5 and it seems to work all right as fouling is greatly reduced. Do you have any idea as to the pressure I am getting with the above load, and velocity?

Your comments on the above will be greatly appreciated. One more question, what is the most accurate black-powder load that I can use without getting heavy fouling?—J.C.B.

Answer: In my opinion you are using entirely too much powder in the .45 Colt Case even with the longest shells available. A charge of 40 grains FFg, black powder, without a priming charge, would be crushed by the 250-grain bullet. This load requires a bullet with a shorter seating depth, like the B. & M. No. 454260, to increase the powder space. With this bullet, or your 250-grain bullet, I would suggest reducing the black-powder load to 35 grains weight, and using a priming charge of 3 grains weight No. 80, or the same weight of bulk Shotgun Smokeless. I believe you would find the above loads cleaner. They would give you practically the velocity which you are now getting with a probable improvement in accuracy. I would judge that your present loads are giving 925 f. s.

A bullet diameter of .454" is large enough for a hard alloy and for use with smokeless powder in the .45 Colt. Using black powder and your comparatively soft alloy of 1 to 30, a bullet diameter of .452" should prove sufficient. There is, however, no reason for changing from the standard .454" diameter you are using.

POLICE TRAINING WEAPONS

FOR instruction and practice matches we use the .22-caliber Colt Official Police, Officers' Model, and Smith & Wesson K-22 revolvers, Colt Woodsman, ACE, Reising and Walther automatics.

This small-bore firing is shot over the miniature Match Militaire of 30 consecutive shots: 10 shots slow fire at 10 to 25 yards, 10 shots timed fire (5 shots in 15 seconds) 10-25 yards, 10 shots rapid fire (5 shots in 11 seconds) 6 to 15 yards. On small-bore L target (sample attached).

For big-bore firing we use the same course of fire at 25 and 15 yards on the full-size Army L target.

Colonel Roller, Captain Harris and the writer are all snarled up on the question of big-bore revolvers.

Captain Harris (who made 298 x 300 three times last week) says: "I vote for the .38 Special because the ammunition companies have all concentrated on that cartridge and made it wellnigh perfect."

Colonel Roller and I vote for the .44 Special.

In our opinion, the .44 Special midrange wad-cutter cartridge is just as pleasant to shoot as the .38 Special of the same type. The dealers inform us that they will supply both cartridges for the same price, about \$20 a thousand.

Our big-bore matches will all be shot at 15 and 25 yards on the 5-inch bull of the Army L target. Shooting from a bench rest at 25 yards I've made a 1-inch 10-shot group, over and over again, with the .44 Special, which same, I contend, is all the accuracy any man need ask for. The .44 cuts such a big healthy hole in the target.

The .38 Special is a fine target cartridge, just that and nothing more; the .22 Long Rifle is a better one. Why all the pressure to induce our teams to shoot a .38-caliber cartridge that only measures .35" instead of a man-size war-gun like the .44?

Why not do our big-bore shooting with a useful practical gun?—R.S.T.

Answer: There are so many arguments on either side of your disputed question concerning the relative training merits of the .38 Special and .44 Special calibers that I do not believe it will ever be satisfactorily settled. Eventually we may perhaps have a compromise cartridge for police work, or something like the .41 caliber in a highly developed target and defensive cartridge, which would utilize to the full the capacity of the present .41-caliber frame which is used in Colt .38 Special caliber police weapons.

A part of your answer is contained in the above as the important difference between the excellently accurate .38 Special and the excellently accurate .44 Special is in the size of the frame of the respective weapons. Many police officers have difficulty in learning to handle the large-frame gun, and consequently the .38 Special is more popular and desirable for general use. The shortcomings of this cartridge for police work have been partially overcome by the heavy-nose bullet in the blunt nose 200-grain ammunition, and in the new metal point .38-44 High-Velocity cartridge designed for automobile piercing.

There is no question about the advantage which a wad cutter in the .44 gives a marksman on the target, especially on a short-range target, like your reduced L target, or the Standard American 20-yard target. Adaptability for police training, however, cannot be measured by such a standard.

SEDGLEY SPORTER RECEIVERS ARE STRONG

I HAVE a Hornet rifle, sold by Sedgley. The bolt and receiver have been taken from a Springfield rifle numbered between 300000 and 400000. It is my understanding that Springfield receivers numbered below about 800000 are very brittle. Please let me know whether in your opinion it would be worth while to have this receiver changed to a more modern one.

I would also appreciate it if you can give me any information as to about what size group should be expected from this rifle at 100 and 200 yards.—H.L.H.

Answer: It would not be advisable to change the receiver of your Sedgley Hornet rifle to the modern type of Springfield receiver as the expense this would involve would not be warranted by the benefit derived from the change. You will find your Sedgley receiver strong enough even in the .30-'06 caliber, as Sedgley heat treats these rebuilt receivers with his own process, and proof-fires them with cartridges giving 90,000 pounds pressure. Of course in your Hornet caliber your pressures never exceed 45,000 pounds at the most, and have a normal mean considerably less than that with factory ammunition.

With a Springfield rifle, it would be different as the receiver could be changed at small expense at the Springfield Armory. In case you have a Rock Island Springfield of serial number below 285000 or a Springfield Armory with serial number under 800000, it has the old "brittle" type of receiver. When sending such a weapon into the Armory for a new barrel, the receiver will be changed to the new modern heat-treated type without extra charge. All arrangements for barrel work, or receiver exchange, must be made directly through the D. C. M. office.

I would say that with your Sedgley Hornet you could expect 4" groups at 200 yards with good sights and from good rest, and of course this would imply 2" groups or smaller at 100 yards.

110-GRAIN BULLETS IN THE KRAG

I WOULD like to ask you several questions with reference to 110-grain bullet with 42-grains of du Pont No. 17½. Will this velocity be high enough to insure breaking up of bullet on contact with the ground? You overlooked giving me the midrange height when zeroed at 200 yards. Would it be absolutely safe to make this load without the use of powder scale? As a matter of information, I would like to know why you recommend such a decided reduction in load over that shown in the handbook; namely, 51 grains.—T.C.O.

Answer: In the Krag I have used 51.0 grains weight of du Pont IMR Powder No. 17½ behind the .30-'06-caliber 110-grain Hi-Speed bullet. This gave 3,200 f. s. in my 30" barrel, and the accuracy was very fine indeed. This, however, is a maximum load, and each charge must be individually weighed, and it should be used in the Krag action suitable for working pressures up to a limit of 43,000 pounds. Such a Krag has its safety lugs and locking lugs bearing evenly, which is a bit unusual. In the average Krag it is wise to reduce this load to 48.5 grains weight to get a greater margin of safety. This is about the lowest charge which will insure disruption of the bullet upon impact.

I would suggest that you further improve this condition and also add convenience to

your reloading, as well as greater economy by using the .30-30-caliber 110-grain bullet made by the Winchester people in their Super-Speed series. This bullet sells for only \$1.08 per hundred and has a full .308" diameter. It is designed for velocities of 2,600 f. s., and your load of 42.0 grains weight will just about give this in the 30" barrel. The maximum load I would recommend with this bullet is 47.5 grains weight No. 17½ powder. Since this bullet breaks up more readily, you can get the same effects with a lower velocity, and your maximum load of 47.5 grains weight, giving 2,950 f. s. in the full-length Krag barrel, will be equal to the 51-grain charge except in the matter of flat trajectory. However, any trajectory resulting from a velocity of 2,700 f. s., and above, is entirely practical in the small-game and medium-game fields. You would be getting 2,800 f. s. in a 26" barrel, and over 2,700 f. s. in a 24" barrel. Zeroed for 200 yards it should shoot 3" high at 100 yards.

GREASED BULLETS ARE BEST IN THE .22

THERE has arisen here the question as to the effect of the new ammunition upon the interior of the barrels of the Smith & Wesson and Colt target revolvers we are using in our revolver work here. The opinion is held by one member of our club that nothing besides greased ammunition should be used. Greased ammunition is messy. It is not suitable to carry loose in one's pocket and is sure to collect grit if dropped upon the ground. On the other hand, the new ammunition that is being placed upon the market is free from these objections. If no injury to our revolvers will result from its use why should we not adopt this ammunition?

The question was brought up because of a plain statement in a little booklet called "Burning Powder" put out by the Smith & Wesson people. On page 27 of the book which I have before me I find the plain and emphatic statement: "Also avoid the use of ungreased bullets if you care anything about the condition of your barrel."

It is contended here that the Smith & Wesson people should know what they are talking about and I would appreciate very much your opinion on this matter.—T.T.

Answer: At the time Col. Roy D. Jones prepared the pamphlet, "Burning Powder," we did not have the Kleanbore type of primer. At the time the very shortest life of a small-bore barrel resulted from the use of ungreased smokeless cartridges, and his advice was thoroughly sound. The lubricant on the bullets would mitigate to some extent the harmful effect of the corrosive primer on the bore.

Today we do not have that problem, and our ungreased bullets are better today also in that they will give no trouble from leading, as they are coated with a lubricating alloy. Very occasionally, however, small-bore barrels become plated with this coating, and to avoid this possibility it is necessary to use the lubricated bullet whether it is coated or of plain lead. Such greased ammunition also works best in the automatic pistol, as far as functioning is concerned. While both the new Colt Woodsman and the Colt Ace pistols will handle dry ammunition, occasional trouble develops which may be entirely avoided by using the lubricated ammunition. In my opinion there would be practically no difference in the wearing qualities on the barrel from either type.

ACCURACY UNDER HUNTING CONDITIONS

I HAVE been in touch with Mr. Drew, who wrote the article on the .25-20 high-speed hand loads for single-shot rifles; and by reloading for my old Remington Hepburn I have pepped it up to the equal of the Hornet, am getting ¾-inch groups at 50 yards and around 3-inch at 100 with Lyman sights and feel very sure that with a scope I could bring out further the accuracy of the cartridge.

I want to know what is considered good grouping at 100 yards, shooting prone and outdoors under woodchuck hunting conditions.—C.A.P.

Answer: A hunting rifle that will stay in a 3-inch circle at 100 yards is a wonder. The 10-shot group should measure 2 inches center to center to be considered accurate. Under prone hunting conditions 2½ inches is good. However, with metallic sights the center of the group will move all around a 6-inch circle at 100 yards with most sporters, from week to week. The Springfield Sporter, as issued, plus target telescope sights will show a more constant zero, or about a third as much and the groups will be slightly smaller as well.

INTERCHANGEABLE HUNTING SCOPES

I HAVE just recently acquired one of Sedgley's .22 Hornets and I am thinking somewhat of buying a telescope for the gun. I also own a .30-'06 Springfield and I am wondering if one telescope would serve the purpose for both of these rifles. The .30-'06 is used principally for hunting and the .22 Hornet is used in shooting crows, hawks and the like.

I also recently acquired a Springfield that has a telescope and the trade mark is Ajax. I have never seen this listed in a catalog and I am under the opinion it is a foreign telescope. Can you give me any information on it?—E.J.B.

Answer: There is only one scope which is adapted for interchangeable use on two rifles, and that is the target scope with target mountings. Such a combination is not adapted for hunting, although it is excellent for small-game shooting. The nearest thing we have to a combined target and practical hunting scope is the B. & M. 3X Marksman. This Belding & Mull scope is adjustable to minute-of-angle units for both windage and elevation. It would be necessary to send both guns to Belding & Mull, 830 Oscola Road, Philipsburg, Pa., and have bases put on both for the same instrument. This scope has been used in Alaskan big-game fields, and also on the Camp Perry and Sea Girt target ranges.

The disadvantages of the B. & M. Marksman scope are its bulk and projections. Also on the Springfield a base must be attached to the bridge which would make it impossible to use the Lyman 48 receiver sight.

Perhaps the best compromise would be to use the 4X Noske field scope with 6" eye relief and Noske internal windage and elevation adjustments. These are adjustable to ½ minute-of-angle units and are positive. The two guns would have to be sent to the Sedgley plant or to R. Noske, San Carlos, Calif., for attachment.

The Ajax scope is a German-made hunting scope which compares quite favorably with contemporary models. I am not directly familiar with this instrument, but it is reported fine, optically.

RECENT EVENTS

(Continued from page 39)

Title of 1932 Champion of the Sabraton (W. Va.) Rifle Club was won by P. A. Dalton with a score of 737. J. B. Fawley was second with 733 and H. Blosser was third with 728. Twenty-seven competed. The match was 5 shots in each of the four positions, fired one night a week for four weeks. Ileson, 329; Daily, 326; Arnold, 325; Allison, 323;

In the Members' Shoot of the Camarillo (Calif.) Rifle Club, held June 19, Dr. Philip H. Philbrook, club secretary, topped the 12 other competitors with 334 x 400. The course was Course A, using silhouette target for r. f. Of the 13 participants, 10 qualified as experts. Scores: Philbrook, 334; Hudsonman, 319; Allison 319; Miller, 315; McGinnes,

315; Conway, 311; Cawelti, 300; Norman, 295; Summers, 282.

The Braintree Guards Association Rifle Club, Inc., East Weymouth, Mass., in a pistol match fired June 26, lost to the Plymouth Revolver Club, 971 to 986. Prior to that event, the club's pistol team defeated the Providence (R. I.) Revolver Club at Providence, for the second time, 932 to 909. The team has moved into fourth place in the Massachusetts Pistol League. In a club rifle match on May 28, E. Cushman, of the Ames, R. C., turned in three 48's and a 47 standing after shooting a 48 prone to lead all others. The annual Camp Perry Trophy Match, held June 12, was won by C. E. Kirts, of the Wallaston Rand R. C., with 100 prone and 90 standing. The club has 2 rifle teams in the Eastern Massachusetts Rifle League.

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For N. R. A. members only, for their individual and personal transactions. This section provides a quick, inexpensive means for disposing of guns and accessories no longer needed, or for the purchase of more suitable similar items. We urgently request that a full description be given of every article offered, and its condition, for transactions of this sort must be based entirely on good faith and mutual satisfaction. Deliberate misrepresentation will of course result in immediate expulsion from N. R. A. membership.

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45 COLT SINGLE ACTION good \$10; 30 caliber Luger fine condition \$12.50; 38 Smith & Wesson perfect, fine condition \$15; WANT—Springfield and Enfield 30-06 rifles. D. O. Amstutz, Ransom, Kans. 8-32

DOUBLE BARREL, gold inlaid, M. L. Shotgun, fine relic \$10. Jewelers lathe, Moseley 22, complete, fine \$20; Swiss, six-jewel, timer, two dials \$7.50; Mauser, 8m/m. action and sporter stock, good \$10. M. S. Triplett, Muncie, Indiana. 8-32

COLT .45 auto, fine target gun, new condition, with holster \$22.50; Remodeled Krag rifle, 25-inch barrel, raised comb, rubber butt, 234 receiver sight \$16; Stevens 2414 target rifle, Vernier tang sight, scope blocks, adjustable trigger pull, stock cut down and weighted, \$11; Fiala .22 pistol with rifle barrel and stock \$10; Orties .32 auto pistol \$4; Brand new Krag barrel 30-inch, never used \$5; Belding & Mull scope mount, fit in 30-06 military sight base \$3; Small portable phonograph \$3. Send stamps, James R. Satava, 11113 Mt. Overlook Ave. Cleveland Ohio. 8-32

SPRINGFIELD 30-06 with interchangeable open and receiver peep sights. Good condition \$22.50. Box N, Lexington, Nebr. 8-32

ALL PRACTICALLY NEW—Colt New Service .44-Spl., 7½-inch, square sight \$22; Winchester rifle 54, 30-30 \$20; Heiser holster for 38-44 S&W Outdoorsman's, 6½-inch barrel, hand-carved \$4; Heiser spring shoulder holster, plain, for same revolver \$3. K. T. Gan, 5606 Drexel Ave. Chicago, Ill. 8-32

WINCHESTER Model 90 .22 caliber repeating rifle in perfect A-1 condition \$9. Albert Harvey, Chester, Montana. 8-32

BISLEY .41 5½-inch, fine \$30; Frontier .45 5½-inch fine \$13.50; Frontier .41 4¾-inch \$11.50; Colt Percussion .44, .36 and .31 all fine; S&W Russian 8-inch \$13.50; S&W Schofield 7-inch \$15; Colt Lightning Model .45 6-inch (big birdhead model) \$13.50; Colt P.P. .38 4-inch \$11.50; Luger 9 millimeter 8-inch \$25; Luger 7.65 12-inch \$25; Luger 7.65 prewar grip-safety \$18.50; Freeman cap and ball, new \$20; Mitrailleuse \$25; German and Austrian machine guns \$25; Large collection antique and modern rifles and carbines. Combination pistol, new, shoots .410 and .22 18-inch barrels \$17.50; 18 copies RIFLEMAN, August '29 to January '31 \$3.50. Ammunition .45 auto 2¢, .38-40 1¢, 7.62 Russian 2¢, Krag 2¢. Locke, 1319 City Natl Bank Bldg., Omaha, NEB.

B&L BINOCULARS 8x25 new condition, case worn, cost \$60, sell cash \$20. Box 111, Franklinville, N. Y. 8-32

GRIFFIN & HOWE 22 L.R. Target Rifle, 24-inch barrel, Farquaharson double set action shotgun safety, 48 rear, Cirassian P. G. stock, perfect, case \$85. WANT—Binoculars. G. B. Kneass, Berwyn, Penna. 8-32

SALE—NO TRADES—22-32 S&W Target Revolver, perfect. Six months old—Fired fifty times. First \$23 money order gets it. Edw. Burke, Junior, 702 W. 61st Pl., Chicago, Ill. 8-32

FINANCIAL EXTREMITIES compel disposal of new and specially selected for accuracy arms. 30-S Remington Express .25 \$50. Winchester 53 25-20 Lyman 103 \$30; 25 Officers Model 38 6-inch \$30. New Lyman 5A \$30. Complete American Rifleman 1924 to date \$20. No trades. Ernest Fumasoli, 5935 Magnolia Avenue, Chicago, Ill. 8-32

WOODS EIDERDOWN heavy weight bag 84 x 78. Perfect condition. Almost unused. Cost \$56. Take \$30. S. D. Monahan, 77 W. Washington St., Chicago, Ill. 8-32

SAVAGE .300 cal. 99G take-down rifle. Two years old; fired forty rounds non-corrosive; Griffin & Howe Ivory bead ramp front, open rear sight, hand rubbed stock. Price \$37.50. No trades. L. L. Mackey, Port Clinton, Ohio. 8-32

BROWNING AUTOMATIC, 16 ga. 28-inch barrel, full coke, raised ventilated rib. In perfect condition, shot only 25 times. Cost \$63.60 sell \$40. Original pattern sheet showing 77% pattern furnished. R. P. Lawless, 55 Crescent Ave., Jersey City, N. J. 8-32

BISLEY COLT 7½-inch barrel, 38 Special good \$20; Colt Auto 45 improved commercial, good \$20. Percy Cardwell, Denton, Texas. 8-32

COLTS ACE, New with Heiser holster \$32.50; S&W 32-20 6-inch barrel, used very little with hand carved belt and holster, very accurate \$35. H. R. Lyon, Van Buren, Ohio. 8-32

VICKERS CHAMPION 22 Target Rifle, gun crank condition, with accessories \$50. Dr. Wright, Corona, Calif. 8-32

SAVAGE N.R.A. 19, with Lyman 17A front and 103 rear sights, as new, gun crank condition \$20. R. Caple, International Falls, Minn. 8-32

SAVAGE 250-3000 Model 45 Super Sporter, like new extra magazine, webb sling, P.G. stock and foreend checkered, Lyman rear bead front, thirty dollars; Latest Winchester 52 fired not over 2000, A1 condition, sling, 48J rear, 17A front, Forty-two dollars, Bausch & Lomb 6x30 binoculars, black leather case, bargain, twenty dollars. Krag Rifle perfect inside, barrel and stock remodeled, sling, Springfield front, Pacific rear with disc, eight dollars. Any or all shipped prepaid for draft or will ship C.O.D. Harry A Timm, Muscatine, Iowa. 8-32

COLT AUTO .45 commercial, good condition, some cartridges \$18. W. A. Shaw, 4 Green St., Brattleboro, Vt. 8-32

7X MIRAKEL Prism binocular \$15; Smith & Wesson, M&P 6-inch, with Audley spring holster \$22.50; Woodsman and holster \$18; 25X Vion telescope "black" \$7.50; The American Rifle \$3.25; Shotguns and Loads, Small Bore Rifle Shooting, Sporting Firearms, The Bullet's Flight \$2.00 each. R. Avery, 45 Franklin St., San Francisco, Calif. 8-32

WINCHESTER HORNET, 23 barrel, modern stock, scope blocks, fine condition \$25. Wm. Swift, Lake Placid, N. Y. 8-32

30-06, 1918 AMMUNITION, case \$15. Two cases \$28. Q. D. Foster, Delaware, Ohio. 8-32

REMINGTON 20 Ga. rib barrel, five shot automatic shotgun, shot 75 times, perfect condition \$15. leather case. WANT—30-06 Springfield Sporter as issued by D. C. M. in perfect condition. Frank W. Hassel, Princeton, Ill. 8-32

SAVAGE .30-30 Super Sporter, brand new, never shot \$25. D. Mongan 701 N. 32nd St., East St. Louis, Ill. 8-32

ITHACA FIELD 16 ga. 28-inch barrels, 40% choke, inside perfect, bluing worn \$20. WANT—Lyman 5A. L. B. Blum, 2568 Bedford Ave., Brooklyn, N. Y. 8-32

NEW COLT ACE fired 100 times, perfect \$25. Winchester 25-20 lever action repeater, scope blocks, fine condition \$15. E. N. Littleton, Bowling Green, Ohio. 8-32

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LEFEVRE 12 Ga. double engraved, Winchester 32-20, Ithaca auto gun. J. H. Rice, 51 Sunnyside Drive, Utica, N. Y. 8-32

KRAG SPORTER 30-40, 22-inch barrel, Western receiver sight, raised comb, full pistol grip, service sling, perfect condition, 100 Remington 30-40 Hi-Speed shells, first \$25 P. O. Money Order takes both. Carlos Howard, Weston, Mo. 8-32

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NEW SPRINGFIELD Sporter, Zeiss scope, Griffin-Howe Mounts. New 8.2 Mannlicher-Schoenauer \$40. 30-06 Springfield Match by Griffin-Howe, new \$85. Henry Happe, Ramsey, N. J. 8-32

MAUSER MILITARY Pistol, 5 1/2 barrel, 9m/m (Luger cartridge), stock, Heiser holster, perfect. \$25. J. Creighton, Mackeyville, Penna. 8-32

SAVAGE 99F 250-3000, excellent, peep sights \$24; Savage Sporter 25-20, perfect inside, fine out, oil finish, 42 Lyman rear and ivory front sight \$17.50; Winchester 92, 25-20, new \$22; Stevens S. S. 32 Ideal, 45 action, very fine, peep sights, Schuetzen butt, reloading outfit, bullets, shells, \$17.50; Winchester 95, 30 U. S. oil finish stock, very good \$16; Colt 22 W. R. F. Police Positive, excellent, holster \$18.50; George Frue, Eagleville, Conn. 8-32

FACTORY NEW WINCHESTER 1912, 20 gauge \$27.50; Fine Winchester 1912, 12 gauge \$17.50; Fine Remington 12 gauge automatic \$25. Several C&B Colts cheap. Edward Peppard, Pontiac, Ill. 8-32

6.5 MANNLICHER SCHOENAUER, Genuine pre-war, 22 1/2-inch barrel, full length stock, exception few slight dents scratches stock, absolutely perfect inside out. Bluing perfect. Scope blocks, no scope. Standard front folding leaf rear sights. Will please most discriminating \$45 C. O. D. exam receipt \$5. No trades. A. M. Langley, 1355 Drake Ave., Burlingame, Calif. 8-32

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45 AUTO. PISTOL Cartridges, 1926 (copper) \$2.00 per 100, \$17.50 per 1000. 1200 30-06 cartridges, repacked \$12; 358311 bullets, lubricated, sized 358, \$5.00 per 1000. David C. McNeill, 33 Beckford St., Beverly, Mass. 8-32

LATE MODEL #52 Winchester in new condition \$35; two #103 Lyman micrometer tang sights \$4 each; Die, plunger and top punches in perfect used condition for #1 Ideal lubricator and size for 25-20; 30-06; 32 Special; 38 S&W; 45 ACP; 45 Colt; 45-70, \$1.75 per set. W. A. Beckrunk, 201 Buffalo, Jamestown, N. Y. 8-32

FINE PRE-WAR ARMS—NEW WAFFENFABRIK pre-war Mauser 6-5 sporting model, 24-inch barrel, Lyman rear, with 500 imported S.P. cartridges. The most powerful 6.5 made. Rifle and cartridges \$79.50. Fine Hammerless pre-war Chas. Daly 3-barrel. Made by J. F. Sauer. 12 ga. 30-inch barrel, open and modified. Deadly accurate 30-30 rifle. Folding peep, fine order \$135; Flat-top Bisley Colt 38 Special 7 1/2-inch barrel, ivory stocks, eagle carving, fine order \$37.50. No trades. Send \$5. M. O. balance C. O. D. Subject examination. W. Kimball, 38 South St., Boston, Mass. 9-32

WINCHESTER 94 Carbine, 25-35, nearly new, peep sight, oil finished \$15. Jess Hartzell, Grinnell, Iowa. 8-32

CHARLES DALY 3-barrel 12 gauge hammer, with 38-55 rifle \$75. fine condition, valued \$200. Lefevre, 12 gauge hammerless \$15. O. A. Franklin, 1540 Portola Drive, San Francisco, Calif. 8-32

EVINRUDE Outboard, single, good condition \$30; Lefever 16 ga. double, fine \$20; Colt Police Positive 4-inch, 38 S&W, \$18. H. F. Lewis, New Albany, Penna. 8-32

DELUXE HORNET, Owen stock, Hensoldt scope, Fecker cross hair, G&H double clamp mounts, brand new. Tested 40 shots Frankford machine rest, 1 1/4-inch group for entire 40 shots, 100 yards, sling, took 7 months and cost \$500 to get complete. No better outfit possible. Beautiful engraving \$250. Stevens 54 offhand pinhead scope two barrels nearly new perfect \$100. New Savage 380 hammer \$15. Hoffman single trap gun compensator cost \$750 for \$175. perfect. No trades. T. K. Lee, Birmingham, Ala. 8-32

G&H 35 NEWTON, engraved, extras, crank condition \$100. M. G. Pratt, 1133 E. Portland, Phoenix, Ariz. 8-32

WINCHESTER 10, lever action good, \$8; Geha 12, Perfect inside \$4; Hawkeye 2 1/2 x 4 1/4, double lens new \$6; WANT—Krag rifle, S&W 1917 revolver. Oscar Myklejord, Fosston, Minn. 8-32

BAUSCH & LOMB Binocular, perfect, list \$90, cash \$35. Rowing machine \$60 cash \$20. Check Protector \$65, bargain \$18. WANT—cabinet makers tools. Lewis, 96 Garden Street, Poughkeepsie, N. Y. 8-32

WINCHESTER 52, first class \$20; Colt Woodsman, extras, holster, magazine, etc. \$20; Savage .32 Auto. pistol, best offer; Savage N.R.A. Sporter style, sling, receiver sight \$16. WANT—Winchester or Lyman A5 scope. A. Edw. Beaumont, 197 W. Court St., Doylestown, Penna. 8-32

COLT SUPER 38, fired 25 times, holster, \$22. Marlin 39 Marbles equipped, oil finished, perfect \$22.50. Frank Herron, Box 535, Kirksville, Mo. 8-32

SALE—NO TRADES: Krag rifle, perfect inside and out. As issued except foot cut off 12" back of muzzle and neatly finished, with Hart patent gun sling, \$17.50. Pacific reloading tool, .250-3000 cal. high speed steel dies, perfect, never used, \$17.50. Four Krag bolts, one slightly used, others brand new; all perfect except for slight rusting in spots, \$3.00 each. Frankford Arsenal four-cavity bronze molt for .45 cal. round balls. Beautifully made, perfect condition, \$4.00. Same but smaller, casting five .30 cal. balls. Fine condition but casts undersize balls and needs recherrying, \$2.50. More than 150 empty 7.62 mm. Russian cases. About half brand new, balance been fired once, \$2.50. About 600 Western Lubaloy 86 gr. flat point full jacket bullets measuring .257", \$4.00.

The following books are perfect except as noted. Small Bore Rifle Shooting, by Crossman, \$2.50; Modern Aircraft, by Page, 1928, \$3.00; Sniping in France, by Hesketh-Prichard, \$4.00; Pistols and Revolvers, by Hatcher, \$2.50; Sporting Rifles and Rifle Shooting, by Caswell, \$3.50; Amateur Gunsmithing, by Whelen, \$2.50; Rifle Craft, by Landis, \$1.50; The Modern Rifle, Vol. I, by Bevis and Donovan, practically perfect, \$2.00; The American Rifle, by Whelen, perfect inside, cover shows slight wear, \$4.00; The Book of The Rifle, by Freemantle, out of print and hard to get, very good condition, \$5.00. A few of these books have my name in ink on fly leaf. L. J. Hathaway, % American Rifleman.

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COLT NEW SERVICE Target Pistol 44 S&W Special 7 1/2, good condition \$28.50, or trade for Camp Perry. J. E. Gorham, Paris, Texas. 8-32

FINE GRIFFIN & HOWE 7M/M Mauser, beautiful carved Circassian stock, cheek piece, trap butt plate, finely engraved, Hensoldt 4X mounted on Griffin & Howe double locking mount, 48 Lyman trigger pull needs adjusting, shot 200 times \$75 M. O. or trade for Sedgley .22 single shot Hornet perfect. Harold Bomberger, Manheim, Penna. 8-32

BOLT SLEEVE sight, Howe-Whelen and other makes \$10 each. Bond powder measure \$8; 30-06 full length resizer \$3; Straight line bullet seater 30-06 \$2. Good as new 6x30 Bausch & Lomb Binoculars \$25. C. P. Zimmer, R. 1, Box 54, Placencia, Calif. 8-32

SHIP MODEL Clipper Ship \$50. Piano accordion, L. Italia \$50; Oil Painting, Hunting Scene \$25. For fine firearms. Ralph Drake, Mankato, Kansas. 8-32

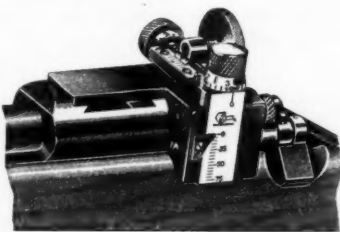
COLTS 45 Single action Army 5 1/2-inch barrel; holster, belt and Ideal 24 reloading tool \$17. Will trade for Colts Woodsman. K. K. Neumann, 512 W. Liberty, Ann Arbor, Mich. 8-32

FLOTO BOAT, good \$25; Savage Bolt .250 Lyman new condition \$30; WANT—38-44 Outdoorsman revolver, .270 stainless barrel or offers. Dr. C. J. Miller, Ord Hospital, Ord, Nebr. 8-32

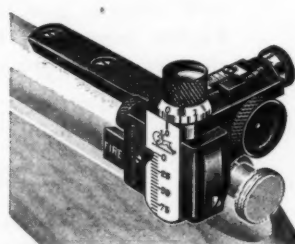
MALCOLM HUNTING SCOPE with mounts, 3-power, perfect \$20; 32-20 Colts Official Police and holster, perfect \$20; WANT—Colts Police Positive 22 latest model, embedded cylinders, 38 frame. Must be perfect. D. W. Green, Prescott, Iowa. 8-32

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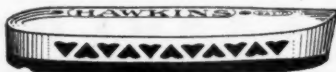
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WINCHESTER 95, 30-06, barrel pitted \$12.50; Colt 32 automatic, never fired \$11; Colt 45 automatic, good \$12.50; WANTED—Shotgun with broken stock. Kampen, 557 Pearl Ave., Rockford, Ill. 8-32

BRAND NEW \$65 21-jewel 16s Illinois Bunn Special R.R. watch, for perfect Springfield Sporter, or 22 O.M.T. Colt with recessed cylinder and holster or Woods sleeping bag. Subject to examination. Offers. Charles Kossack, 5113 Byron St., Chicago, Ill. 8-32

TRADE

HAVE: Springfield Sporter, Colt 45 Auto, Colts 32 Auto, 30 Luger, 25 Walther auto; all perfect. WANTED: Brand new Springfield Service, Krag Sporter or Carbine. Commercial .45 auto late. S&W 1917 45. Springfield 22M1, new 52 heavy barrel. Write, Wade Schwarz, 2323 E. Capitol Dr., Milwaukee, Wisc. 8-32

NEW .30 Remington automatic, Lyman sights, oil stock, 50 Kleanbore cartridges. Trade even for Remington Sportsman 12 or 20. 40X Vion scope \$10. Clyde Strickling, West Union, W. Va. 8-32

WILL EXCHANGE .30-06 F.A. Cartridges for other cartridges calibres .38 Special Colts or .25-35 Winchester, or .25 Auto. Colt. F. H. Scott, 1528 Walnut St., Philadelphia, Penna. 8-32

EXCHANGE—Smith Specialty Trap double, vent. Beaver, new condition. WANTED—Lighter gun of equal value, same condition. C. F. Tilton, Ashland, Ore. 8-32

MARLIN pump, 12-30-inch full, perfect, for Lyman 5A scope. Winchester pump, good \$15. F. C. Culler, 32 N. Arch St., Alliance, Ohio. 8-32

LATEST 52, Lyman 48, oil finished stock, perfect condition, for M-1 Springfield 22, same condition. W. A. Perdue, 1420 Fulton St., Keokuk, Iowa. 8-32

SAVAGE 219 N.R.A., new, 30-40 Krag Sporter 26-inch barrel, good. WANTED—Springfield Sporter 30-06, as issued by D.C.M. in new condition. Donald Ackerson, Princeton, Ill. 8-32

BOW ARROWS QUIVER and Wrist Guard \$12; And South Bend \$15 jeweled watch \$18 to trade for 22 Repeater of equal value. Hugh Mallett, Bradford, Ill. 8-32

GERMAN MAUSER sport rifle, cal. 8m/w with double set trigger, in fine condition; Will exchange for good 22 target rifle or shotgun. Albert Wehinger, Monroe, Wisc. 8-32

FINE 95 WINCHESTER 30-06, handmade stock, Lyman sights, factory condition for D.C.M. Sporter, same condition. Ralph Dunn, Fort Wayne, Ind. 8-32

CORONA PORTABLE Typewriter, original ribbon, new condition, for good telescope sight complete, send complete description. J. G. Crable, Osgate City, Kans. 8-32

SMITH 44, 5-inch, Heiser holster for Colt's S.A. 434 with holster. Perfect. B. P. Leeds, Allendale, Ill. 8-32

WANTED

WANTED—One U. S. Rifle Caliber 22, model 1922 M-1. Rifle must be in good condition and price reasonable. George W. Stansfield, National Bank of Topeka, Topeka, Kans. 8-32

WANTED—GENUINE DWM short barrel Lugers, A-1 condition inside, good outside, price \$12 to \$15. COD examination. Advise condition and complete markings first letter. Walter Green, Goodwillie-Green Box Co. Rockford, Ill. 8-32

WANTED—Binoculars or Monocular. Must be of reliable make and usable condition and priced right. George W. Shaw, Zion, Ill. 8-32

WANTED—Modern Gunsmithing, Baker; Amateur Gunsmithing, Whelen; others. Duble, 619 Commercial, New Orleans, La. 8-32

WANTED—Sporting stock for Mauser. Give details in first letter. W. C. Whitt, Red Bluff, Calif. 8-32

WANTED—Best offer cash; Lyman 5A or 438; stock for 97 Winchester shotgun. Fred Jensen, Woonsocket, S. Dak. 8-32

WANTED—High grade spotting scope. Must be reasonably priced, describe fully. Walter F. Simon, Capitol Annex, Madison, Wisc. 8-32

WANT—BROWNING AUTOMATIC RIFLES: Remington automatic twelve: Strong doubles. (cheap); Damaged stocks and barrels O.K. Will saw them off to make buckshot pistols for protection of U. S. mails. Postmaster, Manville, N. J. 8-32

WANT—LYMAN 5A scope, reasonable. Henry Wolthuis, 1205 North Westledge Ave., Kalamazoo, Mich. 8-32

WANT—22 and 38 Special Colts. Antique rifles and revolvers. Edward Peppard, Pontiac, Ill. 8-32

WANT—16 gauge Marlin visible hammer shotgun, prewar preferred in good condition. J. Zeiss, 4465 Townsend Ave., Detroit, Mich. 8-32

WANT—Prismatic Spotting Scope, best cash price and description. J. L. McDonald, 1600 Brown Marx, Birmingham, Ala. 8-32

WANT—38-55 or 32-40 Winchester \$3 or \$4 barrel, good, cheap. Burl Tillman, 1422 Kitch, Ft. Wayne, Ind. 8-32

THE TRADING POST

Bargain lists and announcements by the makers and distributors of everything used by active outdoorsmen and sportsmen collectors. Advertisers in this section are required to furnish at least one bank and two business references. We believe they are all straight shooters and thoroughly reputable, but we request an immediate report of any unsatisfactory dealings.

FIREARMS—GENERAL

FOR SALE—New rifles and shotguns, latest models, lowest prices. Write for your particular model. J. Warshal Sons, "Exclusive Gun Dealers" 1014 1st Ave. Seattle, Wash. 8-32

FOR SALE—C&B Musket, serviceable condition \$3.95; converted hint lock pistol, Armstrong, Philadelphia \$5.75. 31 Colt 1848 Model C&B, stage hold up \$7.75. R. Heike, Pontiac, Ill. 8-32

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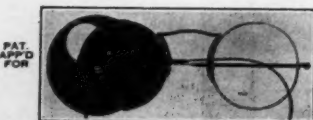
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Grand Aggregate—1st—Dr. I. R. Calkins (Using U. S. in the .38 matches)

Match M—1st—Dr. I. R. Calkins

Match O (Pocket Revolver)—1st—Joseph F. Rivers

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CALIFORNIA

- *Match N*
1st—M. D. McVey

CANAL ZONE

- *Match M*
1st—Van Allen Lyman
2nd—Dr. L. S. Townsend
3rd—Mrs. Belle Thompson

CONNECTICUT

- *Match M*
1st—Joseph F. Rivers
2nd—L. Kowalski
3rd—H. W. Buchanan
- *Match N*
1st—Joseph F. Rivers
3rd—L. Kowalski
4th—H. W. Buchanan
- *Match O*
1st—Joseph F. Rivers
- *Match P*
1st—Fred Hoseney
2nd—M. R. Schmaling

DISTRICT OF COLUMBIA

- *Match M*
2nd—E. C. Moore
3rd—H. E. Brodie
4th—Dr. Wm. Cook
5th—R. Ticknor
6th—C. A. Iovino

- *Match O*
1st—Dr. Wm. Cook
2nd—C. A. Iovino
3rd—W. W. Marr
4th—E. C. Moore
5th—R. Ticknor
6th—H. E. Brodie

MASSACHUSETTS

- *Match M*
1st—Dr. I. R. Calkins
2nd—Dr. R. E. Neill
- *Match O*
1st—Dr. I. R. Calkins
2nd—C. M. Chambers
3rd—Dr. J. L. Baste
4th—Dr. R. E. Neill
6th—F. E. Merrill
7th—P. M. Stoddard

MICHIGAN

- *Match P*
1st—H. Lilleberg
3rd—C. Boylboll

MONTANA

- *Match L*
1st—W. H. Smith

NEW YORK

- *Match O*
1st—H. S. Menkel
2nd—Lt. Dan Cain
3rd—Capt. Paul A. Shepherd

- *Match R*
2nd—Capt. Paul A. Shepherd
4th—R. J. Mercer

- *Match L*
2nd—A. R. Mumford

WASHINGTON

- *Match N*
2nd—R. L. Covey
3rd—Dr. H. L. Davis



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